Capacity on Demand
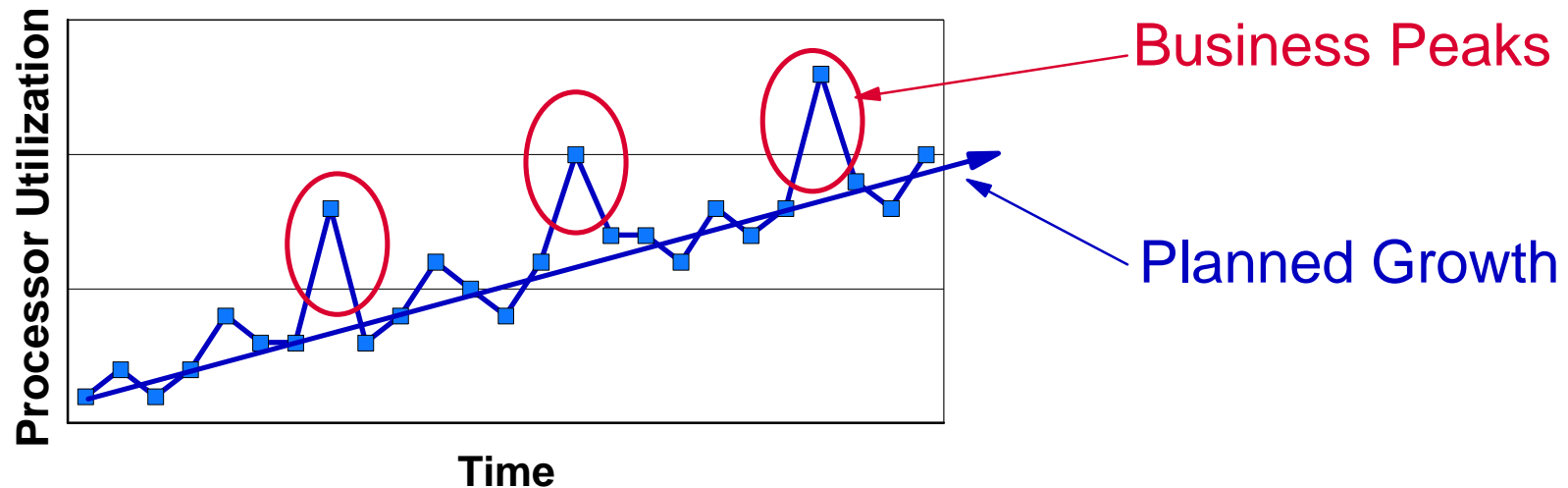
Presentation was refreshed on April 1, 2003

IBM Disclaimer

All statements regarding IBM's plans, directions, and intent are subject to change or withdrawal without notice

The next generation iSeries...simplicity in an on demand world

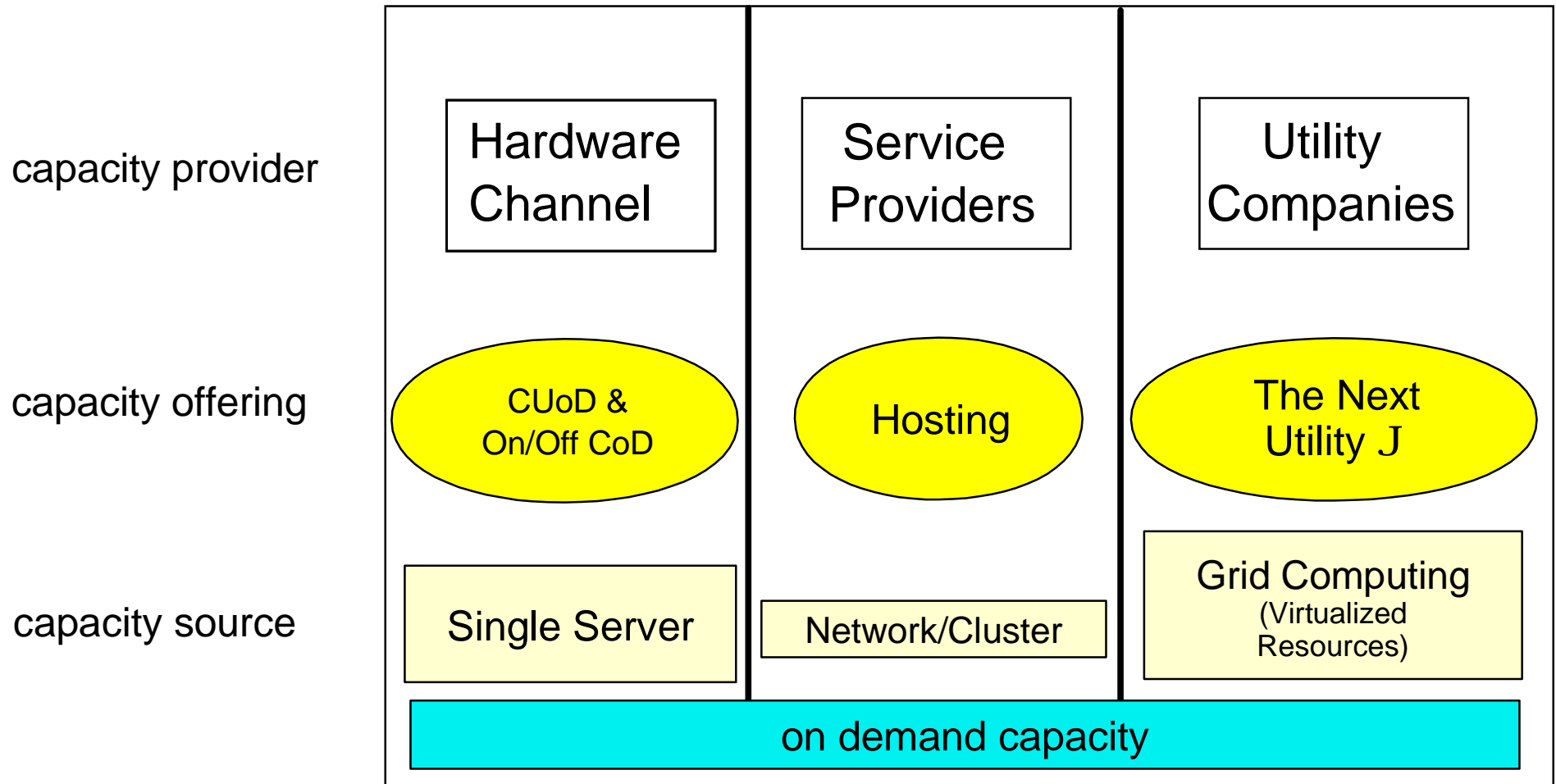# CUoD and On/Off CoD

- # Capacity Upgrade on Demand (CUoD) activates permanent capacity
  - Planned Growth -- pay when purchased, no pricing premiums

- # On/Off Capacity on Demand (CoD) activates temporary capacity
  - Business Peaks   -- pay before use (prepaid days) or pay after use (billable days)
  - Special Purpose   -- prepaid, bonus, and complementary days offset billable days
  - Disaster Mitigation -- Capacity BackUp provides complementary days during disasters

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Positioning capacity offerings for e-business on demand

Today and into the Future

capacity provider	Hardware Channel	Service Providers	Utility Companies
capacity offering	CUoD & On/Off CoD	Hosting	The Next Utility J
capacity source	Single Server	Network/Cluster	Grid Computing (Virtualized Resources)

on demand capacity

More than just processor capacity

- **Processor**
  - ► Units of Processor Capacity

- **Memory**
  - ► Units of Memory Capacity

> IBM is currently evaluating for a future release

- **Disk**
  - ► Units of DASD Capacity

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

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Key Points

- **History**
  - ► Capacity Upgrade on Demand announced on iSeries in October 2000
  - ► On/Off Capacity on Demand announced on iSeries in January 2003
 - ► Capacity BackUp announced on iSeries in September 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 required
  - ► No re-configuration issues when a database is involved
  - ► Budgeting flexibility with On/Off Capacity on Demand (Options to prepay or postpay)

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What's new for 2003
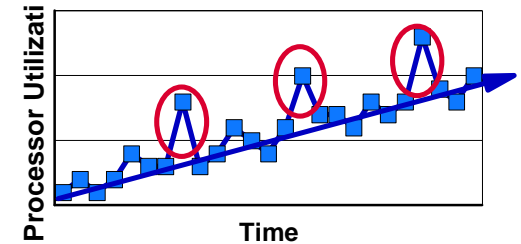
- **It is there when you need it**
  - ▶ Capacity Upgrade on Demand and On/Off Capacity on Demand are both available on iSeries Model 825, 870, 890 *
  - ▶ On/Off Capacity on Demand allows temporary processor activation (GA Date: 4/04/03)
  - ▶ Low cost processor activations for Linux
  - ▶ Simpler fulfillment process for permanent activations (no field VPD required)
  - ▶ New iSeries for Capacity BackUp offering for disaster mitigation (leverages On/Off CoD)

- **Simple for the customer - as easy as 1 - 2 - 3**
  - ▶ Capacity Upgrade on Demand for permanent capacity
    - – Order an activation code to permanently turn on extra capacity (POD Activation Features)
  - ▶ On/Off Capacity on Demand for temporary capacity
    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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Capacity Upgrade on Demand

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	2489	5	3	1614	$25,000
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 LinuxJ at no additional charge)

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"Trial capacity" is not offered the on <u>new</u> 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 <u>elapsed</u> days.

In 2003, the new models (i825, i870, and the new processors of the i890), will <u>not</u> have **trial capacity**. It has been replaced with Bonus Days (14 Processor Days of credit) that is available when/if a customer enables their machine for temporary capacity ... **On/Off CoD.**

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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/servers/eserver/iseries/ondemand/cod

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 (On/Off CoD). 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 Capacity on Demand

"Back-End" pricing -- TCOD Billing Features

You pay full price for each Processor Day you request (qty of processors x quantity of days). If you request a processor to be temporarily activated for 45 days, you will have pay approximately the same price it would cost you to permanently activate that processor.

- Customer Value: Only pay for what you activate when you need it
- Billing Process: Back-end billing (pay after request/use)
- Processor Day Price: Full Price

Model	Processor Feature	Startup Processors	Standby Processors	TCOD Enablement Features	TCOD Billing Features	US Prices
825	2495	1	5	1779	1797	$1,100
825	2473	3	3	1773	1782 and 1783	$1,100
870	2496	2	14	1780	1798	$1,200
870	2489	5	3	1774	1784	$1,200
870	2486	8	8	1776	1785 and 1786	$1,200
890	2499	4	28	1781	1799	$1,300
890	2497	16	8	1777	1788 and 1789	$1,300
890	2498	24	8	1778	1791 and 1792	$1,300

1) TCOD Enablement Features are no charge MES features

2) US Prices represent IBM's list price for a TCOD Billing Feature (one Processor Day of temporary capacity)

3) Additional operating system licensing may be required if using an OS that is licensed by processor (NOT required for OS/400)

4) Additional software licensing may be required if using SW that is licensed by processor

"Up-Front" pricing -- On/Off CoD Prepaid Features

Price is discounted for a prepaid 30 day block of Processor Days .. you actually pay less per Processor Day, but you pay up-front (prior to activation) for use of temporary capacity.

- Customer Value: Budgeting flexibility
- Billing Process: Prepaid block of 30 Processor Days
- Processor Day Price: 25% discount

Model	Processor Feature	Startup Processors	Standby Processors	TCOD Enablement Features	On/OffCoDPrepaid Features	US Prices
825	2495	1	5	1779	1697	$24,800
825	2473	3	3	1773	1682 and 1683	$24,800
870	2496	2	14	1780	1698	$27,000
870	2489	5	3	1774	1684	$27,000
870	2486	8	8	1776	1685 and 1686	$27,000
890	2499	4	28	1781	1699	$29,400
890	2497	16	8	1777	1688 and 1689	$29,400
890	2498	24	8	1778	1691 and 1692	$29,400

1) On/Off CoD Prepaid Features are no charge MES features
2) US Prices represent IBM's list price for a TOn/Off CoD Prepaid Feature (30 Processor Days of temporary capacity)
3) Additional operating system licensing may be required if using an OS that is licensed by processor (NOT required for OS/400)
4) Additional software licensing may be required if using SW that is licensed by processor

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What is a Processor Day?

Temporary capacity is activated, measured, and billed in units called "Processor Days" ...

Requested Processor Days: number of processors multiplied by the number of days specified on a request for temporary capacity

Un-Returned Processor Days: number of processors multiplied by the number of days that remain available for use beyond the expiration of the request for temporary capacity

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How is a Procesor Day Counted?

Scenario-1: When a request for temporary capacity is made (once the confirmation screen is pressed), a request is considered "started".   Once the request is started, a 24 hour period (Processor Day) begins. At the beginning of each 24 hour period that the processor is in use, the server will record one Requested Processor Day.

Scenario-2: A request for temporary capacity can be stopped at any time, when the request is stopped, the server recorded information will be adjusted to reflect the appropriate number of Requested Processor Days (number of processors multiplied times the number of days that the temporary capacity was actually available for use). If a request for temporary capacity is stopped anytime before a 24 hour period has expired ... the server will have recorded a Requested Processor Day for each processor that was specified on the request and made available for use per the previous paragraph (Note: Each time a request is started for a processor, a Requested Processor Day is recorded .. if the request is stopped and a new request is then started within the same 24 hour period, the result will be the recording of an additional Processor Day).

Scenario-3: If processors remain available for use beyond the number of days specified on a request for temporary capacity, the server will record Un-Returned Processor Days. One Un-Returned Processor Day will be recorded for each processor that is still available for use (customer has not removed the processors from the assigned partitions and made them available to be re-claimed by the server) at the expiration of the request . **An additional Un-Returned Processor Day will be recorded for each processor that is still available for use at the beginning of each subsequent 24 hour period.** (Note: Multiple warning messages will be provided on the server alerting the customer to the pending expiration of a request for temporary capacity)

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Prepaid, Bonus, and Complementary Processor Days

Prepaid, Bonus, and/or Complementary Processor Days credited to a customer's machine records will reduce the number of Billable Processor Days to be charged at the end of each calendar quarter.

Prepaid Processor Days

Thirty processor days will be credited to a customer's machine records each time an On/Off CoD Prepaid Feature is purchased.

Bonus Processor Days

Fourteen processor days (this will vary on models purchased with the Capacity BackUp offering) will be 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, the number of credit days will be set to 14.

Complementary Processor Days

Complementary Processor Days can, **at IBM's option**, be 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 tcod@us.ibm.com.

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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

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Start a Request for Processor Days

To request an amount of temporary capacity, simply follow these steps:

1) Start System Service Tools (SST) with the STRSST command
2) Sign on using service tools user profile of System capacity - administration
3) Select the option to WORK WITH SYSTEM CAPACITY
4) Select the option to WORK WITH ON/OFF CAPACITY ON DEMAND
5) Enter a number of processors and a number of days ... then press ENTER
6) Press enter on the confirm screen
7) Assign the Activated Processors to a partition ... you must do these steps
     even if the server 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) ... press Enter
> E) Press Enter to confirm the change
> F) Exit SST or DST

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How to Stop a Request before it Expires

One of the key values of the new On/Off CoD offering is the ability to turn off a request for temporary capacity when temporary capacity is no longer required.

To stop a request before it expires, you must perform two steps. If both of these steps are not completed in the proper order, the machine will continue to count a quantity of Un-Returned Processor Days and you will be billed for these days at the end of the quarter.

First: Use LPAR screens to remove the temporarily activated processors from the partitions they were assigned to and make them available to be re-claimed by the server

Second: Use the following steps to actually "stop" your request for temporary capacity (number of processors for a number of days)
   1) Start System Service Tools (SST) with the STRSST command or start
       Dedicated Service Tools (DST) with F21 on the control panel
   2) Sign on using service tools user profile of System capacity - administration or
       System capacity - operator
   3) Select the option to WORK WITH SYSTEM CAPACITY
   4) Select the option to WORK WITH ON/OFF CAPACITY ON DEMAND
   5) Select the option to stop the request and confirm the change

What Happens When a Request Expires?

One of two scenarios can happen ...

Scenario#1: If you make the temporary capacity available to be re-claimed before the request expires .. then the request will expire and be removed from the WORK WITH ON/OFF CAPACITY ON DEMAND Screen.

Scenario#2: If you do <u>not</u> make the temporary capacity available to be re-claimed before the request expires .. then the request will still expire and be removed from the WORK WITH ON/OFF CAPACITY ON DEMAND Screen.

BUT ....   the server will treat the temporary capacity that is still assigned to partitions as Un-Returned Processor Days (you will be charged for Un-Returned Processor Days at the same rate you would have been charged for Requested Processor Days).
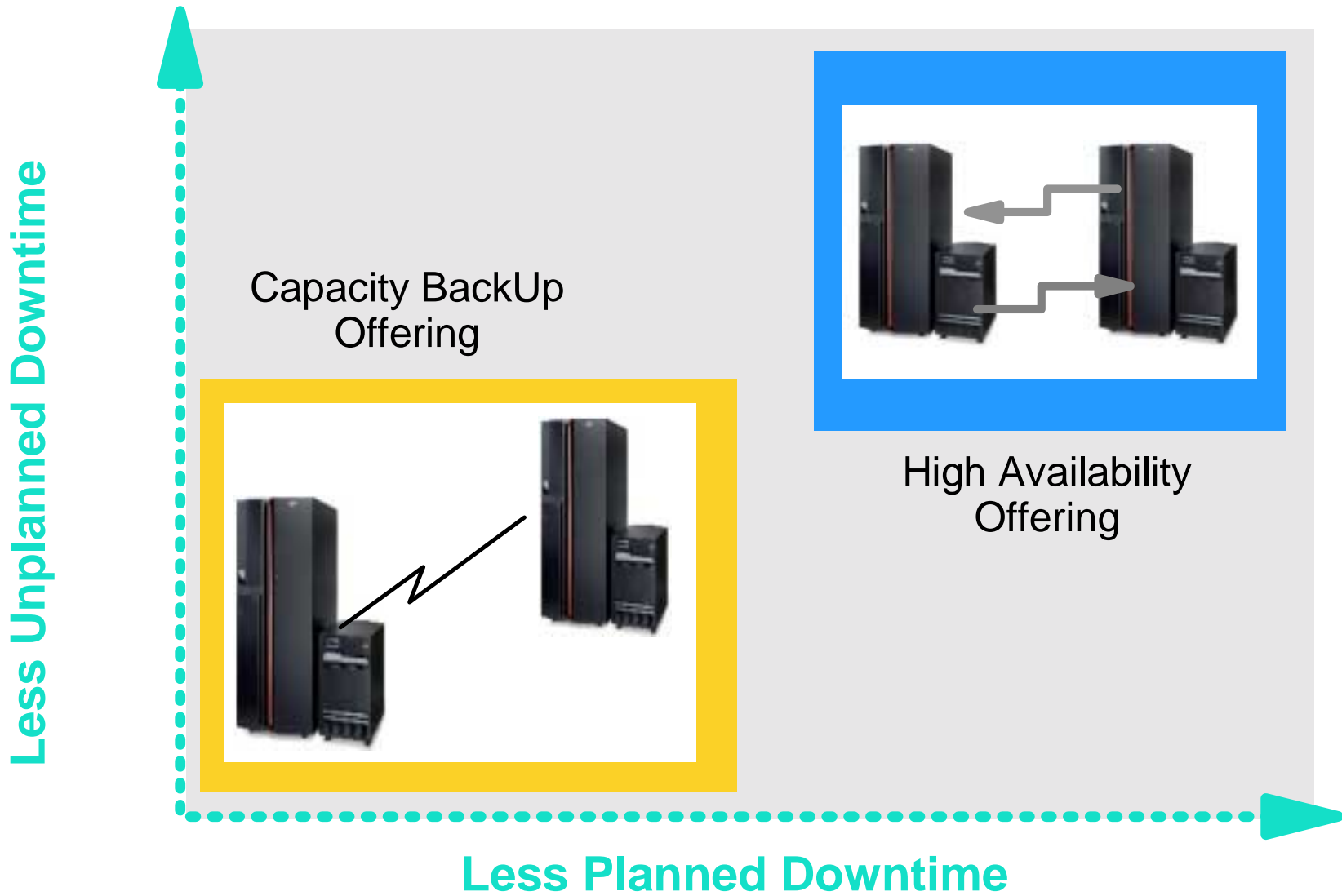
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iSeries for Capacity BackUp

Introducing the new iSeries for Capacity BackUp offering

Less Unplanned Downtime

Capacity BackUp
Offering

High Availability
Offering

Less Planned Downtime

iSeries for Capacity BackUp

iSeries for Capacity BackUp

- **Standby Server implementation**
- **Designed for Disaster Recovery Scenarios**
- **Intended for remote recovery solutions**
- **Not intended for workload distribution**
- **No Option to permanently activate standby processors**

- New server offering
- Priced for disaster recovery
- Not intended for "non-disaster" production use

	Standard	Enterprise	Capacity BackUp
890 24/32-W	$1,440	$2,550	
890 16/24-W	$ 900	$1,970	
890 4/32-W			**$ 900**
870 8/16-W	$ 400	$1,330	
870 5/8-W	$ 345	$ 965	
870 2/16-W			**$ 375**
825 3/6-W	$ 80	$ 330	
825 1/6-W			**$ 150**

USA planned list prices in k$ of CEC (server feature code plus edition feature code)

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Capacity BackUp Workloads

- No Permanent Processor Activations are available on Capacity BackUp hardware

- To receive no charge Processor Days -- enable server for On/Off CoD
  - Sign On/Off CoD contract
  - Sign Capacity BackUp Amendment
  - Order TCOD Enablement Feature
  - Apply TCOD Enablement Code

- No Charge Processor Days for Disaster Testing
  - 825 -- 14 processor days
  - 870 -- 42 processor days
  - 890 -- 84 processor days

- No Charge Processor Days for Disaster Situations
  - Up to 90 Processor Days will be credited at time of disaster declaration (see Planning Guide for declaration process details at www.ibm/com/server/eserver/iseries/ondemand/cod)
  - For details about what qualifies as a disaster, see Planning Guide at www.ibm.com/server/eserver/iseries/ondemand/cod).

- Priced Processor Days are available at published prices for non-disaster related workloads

Capacity BackUp Features

Capacity BackUp Offering: 3 new server, processor, and edition features

Model	n-Way	CPW	Server FC	Proc FC	Package FC (CBU Edition)	POD Activ	Enable FC	Billing FC	Prepaid FC
890	4/32	5600-37400	0892	2499	7441	NA	1781	1799	1699
870	2/16	3200-20000	0891	2496	7440	NA	1780	1798	1698
825	1/6	1250-6600	0890	2495	7439	NA	1779	1797	1697

High Availability Offering: 5 new edition features

Model	n-Way	CPW	Server FC	Proc FC	Package FC (HA Edition)	POD Activ	Enable FC	Billing FC	Prepaid FC
890	24/32	29300-37400	0898	2498	7438	1613	1778	1792	1692
890	16/24	20000-29300	0897	2497	7437	1612	1777	1789	1689
870	8/16	11500-20000	0886	2486	7436	1611	1776	1786	1686
870	5/8	7700-11500	0889	2489	7435	1614	1774	1795	1695
825	3/6	3600-6600	0873	2473	7434	1609	1773	1783	1683

For more information: http://www-1.ibm.com/servers/eserver/iseries/hardware/is4ha/

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Declaring a Disaster

- **Customer contacts IBM Service**
- **IBM Service validates that outage meets criteria for disaster & instructs customer to activate processors on the Capacity BackUp Server**
- **Customer completes Declaration of Disaster Form (see Capacity on Demand Web Page at http://www.ibm.com/servers/eserver/iseries/ondemand/cod)**
- **Customer forwards Form & a screen image of the *Work with Temporary Capacity* Screen to IBM Service**
- **Local IBM Service Manager Signs form**
- **IBM Service forwards signed form & screen image to TCOD@us.ibm.com**
- **The CoD Administrator credits customer account with maximum credit days granted under program**
- **The CoD Administrator informs the registered Business Partner of Declaration**
- **When primary site is operational, customer deactivates the standby processors on the Capacity BackUp Server**
- **Customer sends note to TCOD@us.ibm.com to inform IBM that primary site is operational**
- **The CoD Administrator adjusts the credit days to the actual days used (up to the maximum granted)**
- **Additional details can be found in the CoD Planning Guide posted on the Capacity on Demand Web Page at http://www.ibm.com/servers/eserver/iseries/ondemand/cod**

Note: The customer should have already obtained a no-charge Disaster Enablement key to enable On/Off Capacity on Demand prior a disaster.

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Examples of Disaster and non Disaster Outages

Non Disaster Events

Typical **Planned** Outages
- Backups
- OTF and OS installs
- Application Maintenance
- Hardware/Software Upgrades

Typical **Non Disaster** Outages
- Application Failure
- Operator Error
- Local Power Outages
- Network Failure
- Hardware Failure

Disaster Events

Typical **Disaster** Outages
- Outages that are caused by natural disasters or other catastrophes that damage the production facilities beyond usability
- Outages that require a recovery procedure at an off-site location
- Failure of regional power grid (8/14 power failure in NE US/Canada) Outages not caused by computer hardware or software defects
- A disaster is a rare event that most customers will never experience

Software Licensing

	Server Purchase	CUoD (Permanent Activations)	On/Off CoD (Temporary Activations)
Per User (Quantity)	**One Time Charge** Quantity of user entitlements are purchased when the server is purchased	**No Charge** User entitlement doesn't change when standby processors are permanently activated	**No Charge** User entitlement doesn't change when standby processors are temporarily activated
SW Tier (Performance)	**One Time Charge** Tier entitlement is purchased when the server is purchased	**No Charge** Tier entitlement doesn't change when standby processors are permanently activated	**No Charge** Tier entitlement doesn't change when standby processors are temporarily activated
Per Processor (Total-capacity)	**One Time Charge** One processor entitlement is purchased for each startup processor when the server is purchased	**One Time Charge** One processor entitlement is purchased for each permanently activated standby processor	**No Charge:** Processor entitlement doesn't change when standby processors are temporarily activated **One Time Charge:** One processor entitlement must be purchased the first time a standby processor is temporarily activated
Per Processor (Sub-capacity)	**One Time Charge** One processor entitlement must be purchased for each startup processor assigned to a partition that will use the software when the server is purchased	**One Time Charge** One processor entitlement must be purchased for each permanently activated standby processor assigned to a partition that will use the software	**Daily Use Charge-A:** One processor day of entitlement must be purchased for each day the software was used by a temporarily activated standby processor assigned to a partition **Daily Use Charge-B:** One processor day of entitlement must be purchased each time, any number of standby processors are temporarily activated

On/Off Capacity on Demand for Software (2003 IBM SWG announcement)

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Software Licensing Option: Software Tier

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

Model	Processor Feature	SW Tier
825	2473	P30
870	2489	P40
870	2486	P40
890	2497	P50
890	2498	P50

Software Licensing Option: Per Processor

With each **permanent or temporary** processor activation, it remains the customer's responsibility to comply with SW licensing requirements of individual vendors

IBM: 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

IBM: When a temporary processor activation is requested on the server, daily charges for IBM software that is licensed by processor, are required to be paid on a quarterly basis (On/Off CoD for Software)

Note: There are no **are no additional OS/400 licensing charges associated with a temporary processor activation** (the license for temporary use is included with the processor activation).

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IBM On/Off Capacity on Demand for Software
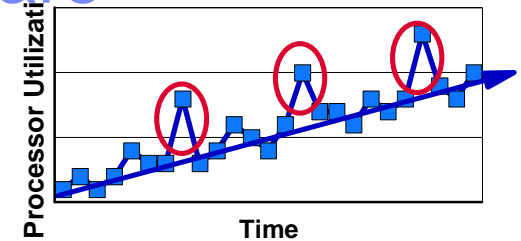
- **On/Off CoD per processor day pricing introduced for selected IBM software products, such as WebSphere Application Server**
  - ► "Per Processor Day " price varies by product
  - ► Quarterly Charge = (Per Processor Day Price) * (Qty or Temporarily Activated Processors) * (Qty of Days Activated)

- **Customer must sign a CoD attachment to ICA (IBM Customer Agreement) and a CoD addendum to IPLA (IBM Software License Agreement)**

- **Customer must report quarterly to IBM**
  - ► Temporarily activated processor information (existing processes documented for hardware)
  - ► IBM Licensed Software Products (new processes for software ... Fax or e-mail)

Announce Ltr 203-202, dated 08/12/03

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IBM On/Off Capacity on Demand for Software

- Software licensed for On/Off CoD is now available from IBM for iSeries and pSeries servers enabled for On/Off Capacity on Demand

- Customers must sign an addendum to their IPLA software contract, agreeing to pay usage charges associated with software licensed for On/Off CoD

- The customer must pay software usage charges, for all software (programs) licensed for On/Off CoD, each time a processor is temporarily activated via the On/Off CoD function of the server

- Customer must purchase standard licensing for 100% of startup processors as a pre-req to licensing software for On/Off CoD

- On/Off CoD software charges may not be accrued against IPLA/OTC products

- The customer has no separate software maintenance entitlement requirements with the introduction of this new offering

- On/Off CoD charges for software are applied on a per day basis; a day is any period of time up to 24 contiguous hours

- On/Off CoD charges for software have no effect on or from standard program offerings, special arrangements or Passport Advantage (PA) accumulation entitlements

- Educational Allowance is the only software pricing discount offering that is applicable toward On/Off CoD charges

- Customers must report data that reflects the temporary activations of processors, on a quarterly basis to their reseller/IBM direct representative utilizing reporting tools when available.

- On/Off CoD software usage must be purchased after the fact, in accordance with the reported usage information

- No prepayments permitted; the customer must pay at the prevailing price.

Backup Copies of IBM Software

IBM license agreements allow the customer to make a backup copy of the program and use it on another machine when the primary machine is inoperable. This constitutes a temporary transfer of the license from the primary machine to the backup machine and terminates the right to use the program on the primary machine. **The IPLA agreement allows this license transfer without notification to IBM.**

IBM defines three scenarios for backup situations: "cold"; "warm"; "hot". In the first two scenarios, separate licensing for the backup machine is not needed. **In a "hot" backup or "High Availability" scenario, the customer must obtain a separate license for any product that is being used concurrently on the primary and the backup machine.** At a minimum, a Base Operating System (OS/400) license is required for the "High Availability" or "Hot Backup" machine. Additional product licenses, if in use concurrently with the primary machine, are required.

COLD -- a copy of the program may reside on a backup machine that is not powered up.
　　　　There is no license requirement for this copy.

WARM -- a copy of the program may reside on a backup machine that is powered up, is "idling",
　　　　but is not doing any productive work (including mirroring transactions, development of
　　　　applications, or testing). **There is no license requirement for this copy.**

HOT　　-- a copy of the program may reside on a backup machine that is doing work. However, **a license is required for any product that is being used concurrently with the primary machine** (at a minimum, a Base Operating System OS/400 license).
　　　　"Work" means mirroring of transactions, updating of log tapes/data, development,
　　　　testing of programs and applications, any synchronization of programs, active linking with
　　　　another machine, any activity that would allow an active hot-switch to occur, etc.

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Software Maintenance

One year of Software Maintenance will be included with all NEW system purchases regardless of the use of the system, including High Availability or Capacity Backup machines.

Software Maintenance may optionally be renewed prior to the expiration in one year. If allowed to expire without renewal, purchasing Software Maintenance later is subject to an "After License Fee."

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Hardware Maintenance/Warranty

Hardware 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)
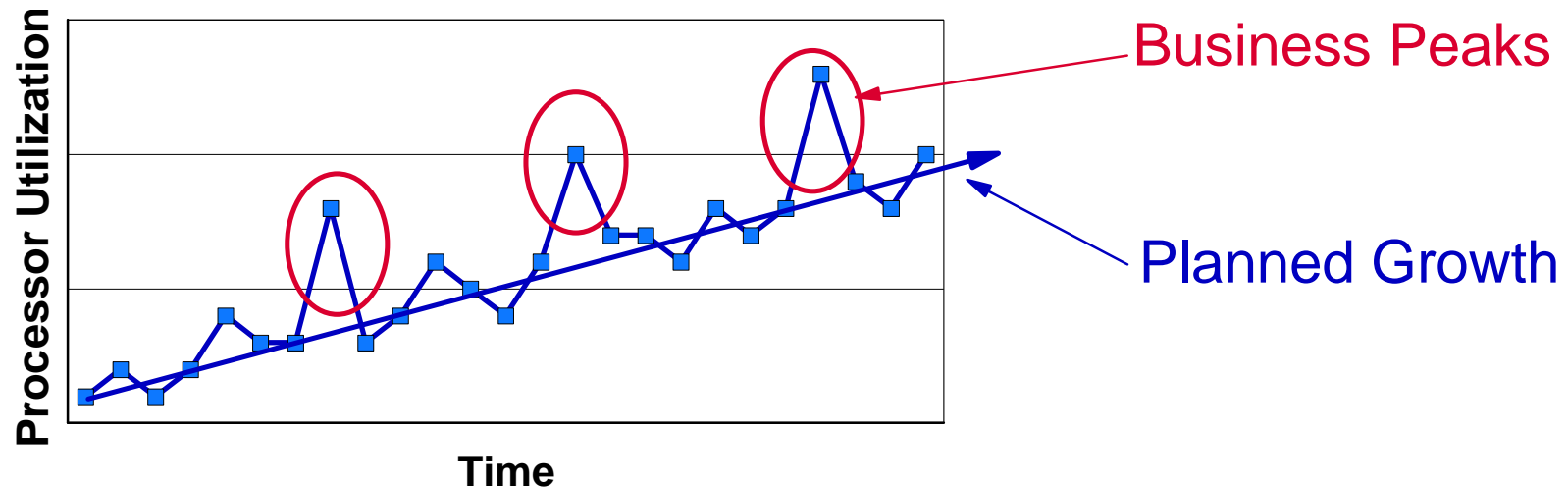
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Capacity on Demand

CUoD and On/Off CoD

- **Capacity Upgrade on Demand (CUoD) activates permanent capacity**
  - Planned Growth -- pay when purchased, no pricing premiums

- **On/Off Capacity on Demand (CoD) activates temporary capacity**
  - Business Peaks   -- pay before use (prepaid days) or pay after use (billable days)
  - Special Purpose   -- prepaid, bonus, and complementary days offset billable days
  - Disaster Mitigation -- Capacity BackUp provides complementary days during disasters

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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 Planning Guides for permanent and temporary capacity:

www.ibm.com/servers/eserver/iseries/ondemand/cod

This same URL is where customers can retrieve their activation codes and partners can register to participate in the sale of On/Off CoD.

Trademarks

400	BRMS	Host Integration Series	JustMail	Payment Manager	Stylized @
ADSTAR	Client Series	Host on Demand	MQSeries	Payment Server	SystemView
Advanced Function Printing	ClusterProven	Host Publisher	MQSeries Integrator	PCOM	VisualAge for Java
AFP	CODE/400	HTTP Server for AS/400	Net.Commerce	PowerPC	VisualAge for RPG
AIX	DataGuide	IBM	Net.Data	PowerPC AS	WebSphere
AnyNet	DB2	IBM Logo	Netfinity	Print Service Facility	WebSphere Advanced Edition
Application Development	DB2 Extenders	IBM Network Station	NetView	pSeries	WebSphere Commerce Suite
APPN	DB2 UDB for AS/400	Information Warehouse	NUMA-Q	PSF	WebSphere Development Tools for AS/400
AS/400	DB2 Universal	Integrated Language Environment	OfficeVision	S/390	WebSphere Standard Edition
AS/400e	e-business logo	Intelligent Printer Data Stream	OS/2	SanFrancisco	Workpad
AT	e(logo) Server	IPDS	Operating System/400	Screen Publisher	xSeries
BrioQuery	Enterprise Storage Server	iSeries	OS/400	SmoothStart	

CUoD for permanent capacity

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

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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/servers/eserver/iseries/ondemand/cod

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)

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Step-by-Step (Continued)

Step5: 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

Step6 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) Exist DST or SST

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On/Off CoD for temporary capacity

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)

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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

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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/servers/eserver/iseries/ondemand /cod*

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 return the signed contract to the GEO CSO organization <u>and</u>
fax a copy to IBM at 1-507-253-4553
   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 <u>not</u> 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)

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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.

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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.

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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/iseries/ondemand/cod

Step2: Customer goes to the appropriate DST/SST Screen (WORK WITH ON/OFF CAPACITY ON DEMAND)

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

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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).

Prepaid, 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.

At the end of each billing period (calendar quarter), IBM will process the reported data collected in the IBM database (MRPD), make adjustments for credit days (prepaid, bonus, and/or complementary) and then notify the sales channel, so the proper billing can take place.

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Bill: Step-by-Step

Step1: Customer must report billing 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 collected

in the IBM database (MRPD), make adjustments for credit days (prepaid, bonus, and/or complementary) and

then notify the sales channel, 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 Billing 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 TCOD Termination Code must be applied to the server:

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

Step2: TCOD Administrator provides the Termination Code

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

Step4: IBM removes TCOD Enablement Feature from Machine Records

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

Scenario #2: Customer/Partner requests a TCOD Termination Code because the customer is selling their machine **(Note: A customer is required to have a TCOD 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 TCOD Termination Code because customer is not paying for temporary capacity

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

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.

BUILT-IN-CAPACITY RESTRICTIONS

Built-in-Capacity is protected by certain technological measures. As a condition for your license to the Program under the Agreement, you may not circumvent such technological measures, or use a third party or third party product to do so, or otherwise access or use unauthorized Built-in-Capacity. In the event IBM determines that changes are necessary to the technological measures designed to limit access or use of Built-in-Capacity to that which has been purchased or otherwise authorized, IBM may provide you with changes to such technological measures. As a condition for your license to the Program hereunder, you agree, at IBM's option, to apply or allow IBM to apply such changes.

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.

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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

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Logical Partitioning (LPAR)

- Standby processors, prior to being permanently or temporarily activated, are <u>not visible</u> within LPAR

- Standby processors, once activated, become visible and are initially designated as <u>available</u> processors

- Available processors must be <u>assigned</u> to a partition before the new capacity can be used

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Maintenance/Warranty

Processor Failures

- Standby processors can be used as REPLACEMENTS for failed procesors. 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 procesor 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 <u>permanent</u> processor activation ... just like any other hardware feature add. (Note: temporary activations do not affect maintenance pricing)

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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)

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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)

Information relative to Permanent Capacity

Dec	Hex	Field Name	Data Type and Length
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 Temporary Capacity

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On/Off CoD: Customer Contracts

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 must be sent to the IBM GEO CSO organization. In addition, a copy must be faxed to IBM at 1-507-253-4553 (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:
http://www.ibm.com/servers/eserver/iseries/ondemand/cod

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On/Off CoD: Customer Responsibilities

Customer Responsibilities

Enable:

A) Order a TCOD Enablement Feature from your Sales Channel

1) The TCOD Enablement Feature is good for 192 Processor Days (temporary capacity that can be requested before a new TCOD Enablement Feature would have to be ordered)

2) TCOD Enablement Features are not additive .. if you order a new one and apply the TCOD 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 TCOD 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

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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 tcod@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

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On/Off CoD: Sales Channel Contracts

Sales Channel Contracts

Business Partners who participate in the enablement of an iSeries server for the downstream customer use of temporary capacity (order for a TCOD Enablement Feature is placed) 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 BPSO representative. After being signed by IBM and the Business Partner, the original must be returned 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: http://www.ibm.com/servers/eserver/iseries/ondemand/cod

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Distributor Responsibilities

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/iseries/hardware/ondemand/cod) by providing a unique/IBM recognizable identifier for the Solution Provider and the Solution Provider's Distributor, along with three e-mail addresses one of them being their Distributor's e-mail address) 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/iseries/hardware/ondmeand) 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!

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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

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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 CoD 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/hardware/ondemand/cod) 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 <u>and</u> 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 1-507-253-4553

C) Update your registration information at the CoD website (www.ibm.com/eserver/isereis/hardware/ondemand/com) 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 <u>and</u> you have recorded the machine serial# at the CoD website under your Sales Channel registration information

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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 CoD 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 TCOD@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 noncompliance with the TCOD contract

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Solution Provider or System Integrator (buys from IBM) Responsibilities

Solution Provider or System Integrator (buys from IBM) Responsibilities

Pre-Requisite:

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 CoD 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/hardware/ondemand/cod) 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 <u>and</u> 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 1-507-253-4553

C) Update your registration information at the CUoD website (www.ibm.com/eserver/isereis/hardware/ondemand/cod) 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 <u>and</u> you have recorded the machine serial# at the CUoD website under your Sales Channel registration information

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Solution Provider or System Integrator (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 CoD 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 Processor Day)

          Note1: The contract signed between the customer and IBM (two-party contract) prior to the enablement of On/Off CoD
              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 IBM partner 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 TCOD@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) 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

IBM Direct Sales Responsibilities

Pre-Requisite:

  A) Register yourself as the Sales Channel at this website (www.ibm.com/eserver/iseries/hardware/ondemand/cod) 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 1-507-253-4553

  C) Update your registration information at the CUoD website (www.ibm.com/eserver/isereis/hardware/ondemand/cod) 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

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iSeries Capacity on Demand (V5R2+ ... Model 825,870,890).prz--80

10/03/2000

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 CoD 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 CoD
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 TCOD@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 noncompliance with the customer signed contract

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Upgrades/Conversions

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)

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Hardware Movement

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 or On/Off CoD?

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-CoD Models: Removing hardware from machine "A" and putting it into machine "B":
    - NOT POSSIBLE TO GET A VALID CONFIGURATION on MACHINE "A" WHEN ADDING ONLY PROCESSOR PARTS (machine will not IPL)
  - B) CoD Models: Removing Hardware from machine "A" and putting it into machine "B":
    - NOT POSSIBLE TO GET A VALID CONFIGURATION on MACHINE "A" WHEN ADDING ONLY PROCESSOR PARTS (machine will not IPL)

- Adding/Removing a Processor Feature **(Processor Parts)** with associated Edition Feature **(Capacity Card)**
  - A) Non-CoD 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 Edition 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) CoD 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 (SRC A6004713 will be displayed warning of invalid capacity card) **with significantly less than 100% of the startup processor capacity**, 0% of any previously activated standby processor capacity, and 100% of the function associated with the Edition Feature (Capacity Card)
        - NOTE1: To get rid of the SRC A6004713 and refresh activations on Machine B ....an IBM maintenance action (billable to the customer) would be required to replace the Capacity Card. As part of the maintenance action, any previously purchased activations on Machine B would be refreshed by Level II (WARNING: Activation Codes will not be refreshed if Machine B's Capacity Card is not returned .. Level II will validate the Serial # of the returned part with the Serial # of Capacity Card stored in the IBM CoD application that is used to generate Activation Codes)
        - NOTE2: To get rid of the SRC A6004713 and not refresh activations on Machine B... an IBM maintenance action (billable to the customer) would be required to replace the Capacity Card.
        - NOTE3: A new system password (machine will IPL in 70 day bypass mode) is required to be requested via IBM Hardware Support because the hardware configuration has changed. To receive a new password from IBM, the IBM machine records must be updated as par t of the process.
        - NOTE4: To purchase new activation/enablement features for Machine B, an order would have to be placed with IBM in the iSeries configurator.
    - 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 **(Frame, Processor Parts, and Capacity Card)**
  - A) Non-CoD Models: **Machine will IPL with 100% of installed processor capacity as well as 100% of the function associated with the Edition Feature (Capacity Card)**
  - B) CoD 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 Edition Feature (Capacity Card)**
    - **NOTE: To purchase new activation/enablement features, an order would be placed in the iSeries configurator**
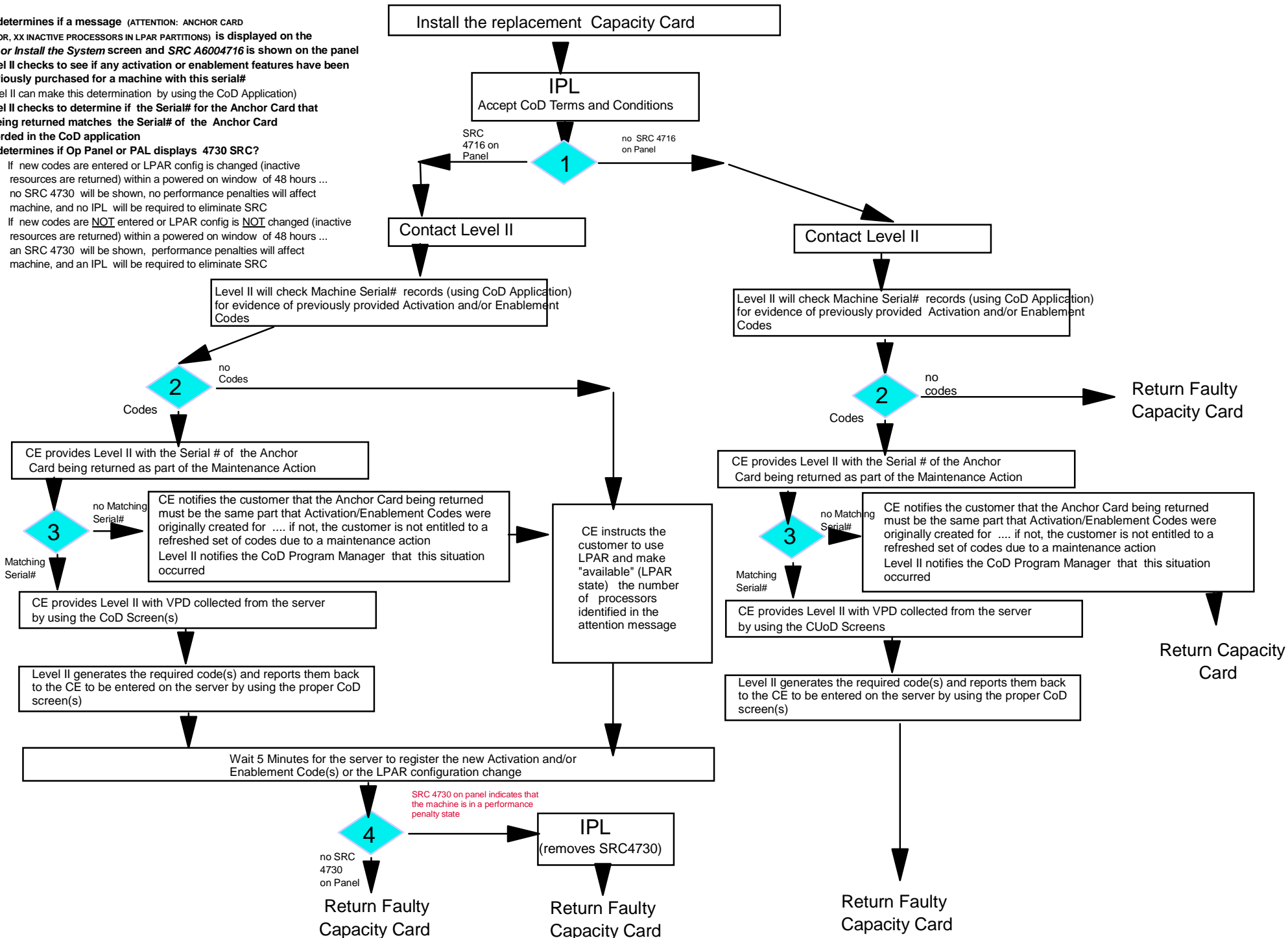
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Field Maintenance, Conversion, Upgrade Instructions

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

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

2) **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 CoD Application)

3) **Level II checks to determine if the Serial# for the Anchor Card that is being returned matches the Serial# of the Anchor Card recorded in the CoD application**

4) **CE determines if Op Panel or PAL displays 4730 SRC?**
   => If new codes are entered or LPAR config is changed (inactive resources are returned) within a powered on window of 48 hours ... no SRC 4730 will be shown, no performance penalties will affect machine, and no IPL will be required to eliminate SRC
   => If new codes are NOT entered or LPAR config is NOT changed (inactive resources are returned) within a powered on window of 48 hours ... an SRC 4730 will be shown, performance penalties will affect machine, and an IPL will be required to eliminate SRC

Install the replacement Capacity Card

IPL
Accept CoD Terms and Conditions

1
SRC 4716 on Panel / no SRC 4716 on Panel

Contact Level II

Contact Level II

Level II will check Machine Serial# records (using CoD Application) for evidence of previously provided Activation and/or Enablement Codes

Level II will check Machine Serial# records (using CoD Application) for evidence of previously provided Activation and/or Enablement Codes

2 — no Codes
Codes

2 — no codes
Codes

Return Faulty Capacity Card

CE provides Level II with the Serial # of the Anchor Card being returned as part of the Maintenance Action

CE provides Level II with the Serial # of the Anchor Card being returned as part of the Maintenance Action

3 — no Matching Serial#
Matching Serial#

3 — no Matching Serial#
Matching Serial#

CE notifies the customer that the Anchor Card being returned must be the same part that Activation/Enablement Codes were originally created for .... if not, the customer is not entitled to a refreshed set of codes due to a maintenance action
Level II notifies the CoD Program Manager that this situation occurred

CE notifies the customer that the Anchor Card being returned must be the same part that Activation/Enablement Codes were originally created for .... if not, the customer is not entitled to a refreshed set of codes due to a maintenance action
Level II notifies the CoD Program Manager that this situation occurred

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

CE provides Level II with VPD collected from the server by using the CoD Screen(s)

CE provides Level II with VPD collected from the server by using the CUoD Screens

Level II generates the required code(s) and reports them back to the CE to be entered on the server by using the proper CoD screen(s)

Level II generates the required code(s) and reports them back to the CE to be entered on the server by using the proper CoD screen(s)

Return Capacity Card

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

SRC 4730 on panel indicates that the machine is in a performance penalty state

4
no SRC 4730 on Panel

IPL
(removes SRC4730)

Return Faulty Capacity Card

Return Faulty Capacity Card

Return Faulty Capacity Card

Model 825, 870, 890 (with V5R2)

Processor Conversion, Edition Conversion or Model -to-Model (no new footprint)

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 inactive processors that were activated and assigned to partitions
D) Power off the system

For assistance with LPAR, see Information Center articles at:
http://publib.boulder.ibm.com/iseries/v5r2/ic2924/info/rzaj9/rzaj9iclpar.htm

Install new Hardware and IPL
(accept CoD terms and conditions)

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

Enter New System Password

SRC 4716 on panel

no SRC 4716 on panel

1

No Codes

no new Codes

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/servers/eserver/iseries/ondemand/cod

2

new Codes

2

Code Available

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

3) CE determines if Op Panel or PAL displays 4730 SRC?
=> If new codes are entered or LPAR config is changed (inactive resources are returned) within a powered on window of 48 hours ... **no SRC 4730 will be shown, no performance penalties will affect machine, and no IPL will be required to eliminate SRC**
=> If new codes are NOT entered or LPAR config is NOT changed (inactive resources are returned) within a powered on window of 48 hours ... **an SRC 4730 will be shown, performance penalties will affect machine, and an IPL will be required to eliminate SRC**

Enter code(s) on the server by using the proper HMC screen for CoD

Enter code(s) on the server by using the proper HMC screen(s) for CoD

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

SRC 4730 on panel indicates that the machine is in a performance penalty state

3

no SRC 4730

IPL
(removes SRC4730)

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

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

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

Model 825, 870, 890 (with V5R2)
Model to Model (new footprint) Upgrade Instructions

Manufacturing will load CoD Codes if CoD features have been ordered. In addition, the CoD codes will be shipped with order (paper) and posted at the following CoD website (www.ibm.com/eserver/iseries/hardware/ondemand)

IPL
Accept CoD Terms and Conditions

Wait 5 Minutes

1) **CE determines if Op Panel or PAL displays 4730 SRC?**

=> If new codes are entered or LPAR config is changed (inactive resources are returned) within a powered on window of 48 hours **... no SRC 4730 will be shown, no performance penalties will affect machine, and no IPL will be required to eliminate SRC**

=> If new codes are <u>NOT</u> entered or LPAR config is <u>NOT</u> changed (inactive resources are returned) within a powered on window of 48 hours **... an SRC 4730 will be shown, performance penalties will affect machine, and an IPL will be required to eliminate SRC**

1

SRC 4730 on panel indicates that the machine is in a performance penalty state

no SRC 4730

Return Required Hardware

CE instructs the customer to use LPAR and make available (LPAR state) any previously activated standby processors (can use HMC screens for CoD to determine the proper quantity)

IPL
(removes SRC4730)

If LPAR requires an IPL then re-IPL the server

Return required upgrade hardware