Service Update Package/Enhancements for IBM ACF/NCP V7R8 and ACF/SSP V4R8

Overview
To improve time-to-market for new requirements while improving quality and dependability of an installed system, a Service Update Package (SUP) is now available for the following products:

- ACF/NCP V7R8 for OS/390 (MVS™), VM
- ACF/SSP V4R8 for OS/390 (MVS), VM

A SUP (or refresh of the base product) quickly delivers product enhancements, tweaks, new function, and the latest service available for the product. Along with the maintenance/service updates, these new base tapes (SMC0019) have incorporated the following new functions and enhancements:

Token Ring
- Predefined token-ring route provides the option of specifying an optimal route for 3745 subarea connection.
- Dynamic windowing for token-ring stations extended to 3746 Model 900 increases the speed of recovery from lost frames condition.

Network Management
- Common threshold for LU pool depletion enables constant monitoring of SDLC link status.
- NCP will now separate the dynamic LUs from static LUs which helps simplify network management.
- Additional service aids assist in the problem determination process.
- SDLC link disconnect enhancement.

Performance Enhancement
- Frame Relay IP congestion control provides additional buffers that improve throughput.

Additional Enhancements
- X.25 network support provides an additional option when defining X.25 networks.
- ALCI extended application name lets application names be up to 17 characters long.

Key Prerequisites
Refer to the Software Requirements section for details.

Planned Availability Date
August 25, 2000

At a Glance
IBM ACF/NCP V7R8 and ACF/SSP V4R8 Service Update Package (SMC0019) offer new enhancements that increase serviceability, function, and flexibility in the following areas:

- Token Ring — Predefined token-ring routes, dynamic windowing for 3746 Model 900 token-ring stations so that the predetermined optimal route is used
- Network Management — Additional service aids to assist in problem determination, enhanced SDLC disconnect
- Performance — Frame Relay IP congestion control that improves throughput
- Miscellaneous — X.25 network support enhancement, ALCI feature enhancement provides greater network flexibility

For ordering, contact:
Your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL

Reference: YE001

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The following is a description of the new functions and enhancements contained in the ACF/NCP V7R8 and ACF/SSP V4R8 service update package.

**Token Ring**

**Predefined Token-Ring Route:** NCP V7R8 provides a means to override the normal route discovery process for a 3745 (TIC1/TIC2) token-ring subarea connection by specifying, at system definition time, the exact bridged route that must be used to establish the connection. When this NCP option is selected, the connection will not become operative until the specified route is available. This insures that only the predetermined optimal route is used.

**Token-Ring Congestion Control Enhancement:** The dynamic windowing (DYNWIND) token-ring support, that originally supported 3745-attached token-ring stations, is now available for the 3746 Model 900. Dynamic windowing specifies how much to reduce a link station’s frame queue before requiring an acknowledgment when frame loss is detected. This function lets the network recover more quickly from lost frame conditions in both normal and congested environments.

**Network Management**

**Switched SDLC Subarea Disconnect Enhancement:** Via a VTAM® message, NCP V7R8 now reports the completion of an operator-initiated hang-up from the secondary side of a switched SDLC subarea connection. This allows automated host operational procedures to be constantly aware of link status and not just on an exception basis.

**LUs Alert Threshold Enhancement:** NCP V7R8 now separates dynamic LUs from static LUs. This allows a common alert threshold to be defined for LU utilization for all NCPs in a network regardless of differing LU pool sizes specified in different NCPs in the network. This enhancement simplifies network management by ensuring that any LU utilization alert received indicates a common threshold and allows for common recovery procedures for all NCPs in a network.

**DYNPOOL Control Block Recovery:** NCP V7R8 checks the validity of all DYNPOOL control blocks prior to freeing the buffer. This change improves first failure data capture and shortens the service time by ensuring that the buffer contents are not lost if the control block contents are invalid, indicating a possible problem.

**Enhancements to Scanner Interface Trace:** The number of bytes that the Scanner Interface Trace (SIT) can record for 3746-900 frame relay BAN links has been increased to allow the entire TH, RH, and up to 17 bytes of the RU, to be recorded.

**Additional Diagnostic Codes:** Additional diagnostic codes have been added to NCP V7R8’s protocol error messages for 3746 Model 900 connections. This enhancement assists you in pinpointing the cause of any protocol error reported to the 3746 Model 900.

**NCP Performance Enhancements**

**Frame Relay IP Congestion Control Enhancement:** By expanding the amount of NCP buffers that can be used by a frame relay station, IP throughput is improved. This helps prevent the protocol locking out another, therefore improving NCP’s overall throughput.

**Miscellaneous Enhancements**

**Expanded X.25 Network Support:** NCP V7R8 now allows the optional definition of delayed or immediate packet acknowledgement. This gives you greater flexibility because some X.25 networks do not allow delayed packet acknowledgements (piggybacking).

**ALCI Extended Application Name:** The application name (LOGAPPL) keyword now allows the network-qualified name to be up to 17 characters in length.

**Additional Information**

In many cases, the enhancements offered by the ACF/NCP V7R8 SUP for OS/390 (MVS), VM (SMC0019) contain corequisite support for the ACF/SSP V4R8 SUP for OS/390 (MVS), VM (SMC0019). Therefore, if you order and install ACF/NCP V7R8 SUP for OS/390 (MVS), VM (SMC0019), you should also order and install ACF/SSP V4R8 SUP for OS/390 (MVS), VM (SMC0019). Please note, the ACF/NCP V7R8 for VSE and ACF/SSP V4R8 for VSE product tapes are unaffected by this announcement.

These enhancements to ACF/NCP V7R8 for OS/390 (MVS), VM, and ACF/SSP V4R8 for OS/390 (MVS), VM base product tapes are also available for all ACF/NCP, ACF/SSP operating systems (OS/390, VM, VSE) via PTF service (without re-ordering the base product tapes). You are not required to re-order the base product tapes if PTF service is desired versus re-order and re-install of the base products.

**Year 2000**

These products are Year 2000 ready. When used in accordance with their associated documentation, they are capable of correctly processing, providing, and/or receiving date data within and between the twentieth and twenty-first centuries, provided that all products (for example, hardware, software, and firmware) used with the products properly exchange accurate date data with them.

**Euro Currency**

These programs are not impacted by euro currency.

**Hardware and Software Support Services**

**SmoothStart™/Installation Services**

IBM Installation Services or Installation Services will not be provided for NCP.

Your country may offer NCP installation and customization through fee-based Country Specific Offerings. Contact your IBM representative for further information on what is available in your country.

If you are migrating to APPN®, IBM is able to provide you with APPN Migration Services. These services are designed around your specific migration needs, providing the flexibility to match your requirements and environment. Our project management team helps ensure that all the pieces mesh when the migration is finished. All information can be found at:

http://www.as.ibm.com/asww/offerings/oww05eE.html
Reference Information

Refer to:

- Software Announcement 297-342, dated September 9, 1997
- Software Announcement 298-332, dated September 22, 1998
- Withdrawal Announcement 998-294, dated September 29, 1998
- Software Announcement 299-223, dated August 17, 1999
- Software Announcement 299-222, dated August 17, 1999

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Technical Information

Specified Operating Environment

**Hardware Requirements:** ACF/NCP V7R8, for OS/390® (MVS™), VM, and VSE, is designed to operate on any IBM 3745 Communications Controller channel-attached to a host processor, or remotely connected by an SDLC link, IBM Token Ring, X.25, Frame-Relay or ISDN through another controller to a host processor.

When installed, the 3746 Model 900 provides ESCON®-attachment capability for the 3745, as well as additional, higher-performance token-ring adapters and communications-line adapters.

- Token-ring connection balancing for 3746 Model 900 requires 3746 feature numbers 5810 or 5811, and type 3 token-ring processors (TRP3).
- Frame Relay Boundary Access Node (BAN) connection balancing for 3746 Model 900 requires feature numbers 5810 or 5811, and type 3 communications-line processors (CLP3).
- Support for 32 ESCON stations requires feature numbers 5810 or 5811, and type 3 ESCON processors (ESCP3).
- Dynamic Windowing for 3746 Model 900 requires 3746 feature number 5812, and type 3 token-ring processor (TRP3)
- Extended X.25 Support requires 3746 feature number 5812, and type 3 communications-line processor (CLP3).

Refer to the program directory for additional details relative to the hardware requirements for ACF/NCP Version 7 Release 8 for OS/390 (MVS), VM, and VSE.

**Software Requirements**

**NCP V7R8/SSP V4R8 Service Update Package Software Requirements**

The installation of NCP V7R8 SUP for MVS, VM (SMC0019) requires the installation of SSP V4R8 SUP for MVS, VM (SMC0019).

The new enhancements/functions contained in the NCP V7R8 and SSP V4R8 SUP can also be implemented for all operating systems (MVS, VM, VSE) environments by applying the applicable corequisite APARs to the base NCP V7R8 and base SSP V4R8 products as noted below:

- **Token-Ring Outbound Data Queue Length** function requires one of the following:
  - NCP V7R8 SUP for MVS, VM (SMC0019)
  - NCP V7R8 and APAR IR42166 (VM, MVS)
  - NCP V7R8 and APAR IR42302 (VSE)

- **Predefined Token-Ring Route** function requires one of the following:
  - NCP V7R8 SUP for MVS, VM (SMC0019) and SSP V4R8 SUP for MVS, VM (SMC0019)
  - NCP V7R8 and APAR IR42305 (MVS), SSP V4R8 and APAR IR42372 (MVS)
  - NCP V7R8 and APAR IR42305 (VM), SSP V4R8 and APAR IR42376 (VM)
  - NCP V7R8 and APAR IR42306 (VSE), SSP V4R8 and APAR IR42379 (VSE)

- **DYNPOOL Control Block Recovery** function requires one of the following:
  - NCP V7R8 SUP for MVS, VM (SMC0019) and SSP V4R8 SUP for MVS, VM (SMC0019)
  - NCP V7R8 and APAR IR42308 (MVS), SSP V4R8 and APAR IR42373 (MVS)
  - NCP V7R8 and APAR IR42308 (VM), SSP V4R8 and APAR IR42378 (VM)
  - NCP V7R8 and APAR IR42321 (VSE), SSP V4R8 and APAR IR42379 (VSE)

- **LUs Alert Threshold** function requires one of the following:
  - NCP V7R8 SUP for MVS, VM (SMC0019)

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• NCP V7R8 and APAR IR42460 (MVS, VM)
• NCP V7R8 and APAR IR42467 (VSE)

Switched SDLC Subarea Disconnect function requires one of the following:
• NCP V7R8 SUP for MVS, VM (SMC0019)
• NCP V7R8 and APAR IR41936 (MVS, VM)
• NCP V7R8 and APAR IR41941 (VSE)

Dynamic Windowing for TIC3 function requires one of the following:
• NCP V7R8 SUP for MVS, VM (SMC0019) and SSP V4R8 SUP for MVS, VM (SMC0019)
• NCP V7R8 and APAR IR42608 (MVS), SSP V4R8 and APAR IR42617 (MVS)
• NCP V7R8 and APAR IR42608 (VM), SSP V4R8 and APAR IR42618 (VM)
• NCP V7R8 and APAR IR42611 (VSE), SSP V4R8 and APAR IR42619 (VSE)

Partial Dump Format function requires one of the following:
• SSP V4R8 SUP for MVS, VM (SMC0019)
• SSP V4R8 and APAR IR41661 (MVS)
• SSP V4R8 and APAR IR42664 (VM)
• SSP V4R8 and APAR IR42665 (VSE)

Frame Relay IP Congestion Control function requires one of the following:
• NCP V7R8 SUP for MVS, VM (SMC0019)
• NCP V7R8 and APAR IR42059 (VM, MVS)
• NCP V7R8 and APAR IR42060 (VSE)

Diagnostic Codes function requires one of the following:
• NCP V7R8 SUP for MVS, VM (SMC0019)
• NCP V7R8 and APAR IR42370 (VM, MVS)
• NCP V7R8 and APAR IR42375 (VSE)

Internal NCP Traces function requires one of the following:
• NCP V7R8 SUP for MVS, VM (SMC0019)
• NCP V7R8 and APAR IR42599 (VM, MVS)
• NCP V7R8 and APAR IR42601 (VSE)

Extended X.25 Support function requires one of the following:
• NCP V7R8 SUP for MVS, VM (SMC0019) and SSP V4R8 SUP for MVS, VM (SMC0019)
• NCP V7R8 and APAR IR42600 (MVS), SSP V4R8 and APAR IR42660 (MVS)
• NCP V7R8 and APAR IR42600 (VM), SSP V4R8 and APAR IR42662 (VM)
• NCP V7R8 and APAR IR42602 (VSE), SSP V4R8 and APAR IR42663 (VSE)

Extended ALCI Application Name function requires one of the following:
• NCP V7R8 SUP for MVS, VM (SMC0019)
• NCP V7R8 and APAR IR42545 (VM, MVS)

Extended SIT Trace Data function requires one of the following:
• NCP V7R8 SUP for MVS, VM (SMC0019)
• NCP V7R8 and APAR IR42546 (VM, MVS)
• NCP V7R8 and APAR IR42548 (VSE)

NCP V7R8 Base Software Requirements
ACF/NCP V7R8 is generated using the following ACF/SSP programs:
• ACF/SSP V4R8 for OS/390 (MVS/ESA™) (5655-041)
• ACF/SSP V4R8 for VM/ESA® (5654-009)
• ACF/SSP V4R8 for VSE/ESA® (5666-064)
Beginning with ACF/SSP V4R7, the Network Definition Facility (NDF) offers exclusive support for High Level Assembler (HLAS) (5696-234). Support of the HLAS program product is available on OS/390, MVS/ESA, VM/ESA, and VSE/ESA operating systems.

If the HLAS does not come installed on your operating system, you will need to order and install it. Refer to the following table to determine if the High Level Assembler is integrated with your operating system.

<table>
<thead>
<tr>
<th>Operating System</th>
<th>HLAS V1R2</th>
<th>HLAS V1R3</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVS/ESA V5R1 and later (5655-068, 5655-069)</td>
<td>Order separately</td>
<td>Order separately</td>
</tr>
<tr>
<td>OS/390 R1, R2, R3 (5645-001)</td>
<td>Integrated</td>
<td>Order separately</td>
</tr>
<tr>
<td>OS/390 V2R4, V2R5, V2R6 (5647-A01)</td>
<td>Integrated</td>
<td>Order separately</td>
</tr>
<tr>
<td>OS/390 V2R7, V2R8 (5647-A01)</td>
<td>Not applicable</td>
<td>Integrated</td>
</tr>
<tr>
<td>VM/ESA V2R2 and V2R3 (5654-030)</td>
<td>Order separately</td>
<td>Order separately</td>
</tr>
<tr>
<td>VM/ESA V2R4 (5654-030)</td>
<td>Not applicable</td>
<td>Order separately</td>
</tr>
<tr>
<td>VSE/ESA V1R4.3, V1R4.4 (5750-ACD)</td>
<td>Order separately</td>
<td>Order separately</td>
</tr>
<tr>
<td>VSE/ESA V2R2, V2R3 (5690-VSE)</td>
<td>Integrated</td>
<td>Order separately</td>
</tr>
<tr>
<td>VSE/ESA V2R4 (5690-VSE)</td>
<td>Not applicable</td>
<td>Integrated</td>
</tr>
</tbody>
</table>

In addition to the HLAS requirements, the following authorized program analysis reports (APARs) are required:

- DFSMS/MVS® OW26738 is required for the binder.
- DFSMS/MVS OW27802 is required for the linkage editor.
- VM/ESA VM61534 is required for the linkage editor.

In addition to providing the generation function for this release, ACF/SSP provides utilities for loading, dumping, and trace formatting for NCP when operating with OS/390, MVS/ESA, VM/ESA, VSE/ESA operating systems.

Support for a new VTAM® command to trigger Non-Disruptive Route Switch (NDRS) for 3745 subarea connections requires the SNA Services feature of SecureWay™ Communications Server for OS/390 V2R8.

Use of the partitioned emulation programming extension of ACF/NCP for these releases requires the appropriate release of the Emulation Program for IBM Communication Controllers, as indicated in the following Compatibility section.

Compatibility: ACF/NCP V7R8 is supported in conjunction with the following licensed programs, at the function level of the version and release, for as long as program services are available for the particular version and release.

- Host-resident programs:
  - ACF/SSP V4R8
  - eNetwork™ Communications Server for OS/390 Release 1, or later
  - ACF/VTAM® V4R4
  - ACF/VTAM V4R3
  - ACF/VTAM V4R2
  - ACF/VTAM V3R4.2
  - ACF/VTAM V3R4.1
  - ACF/VTAM V3R4
  - ACF/Telecommunication Access Method (TCAM) V2R4 (see Note 1)
  - TME10 NetView® for OS/390 Release 1, or later
  - NetView V3R1
  - NetView V2R4

200-166
- NetView V2R3
- NetView Performance Monitor V2R4
- NetView Performance Monitor V2R3
- NetView Performance Monitor V2R2
- NetView Performance Monitor V1R6
- NTuneMON V2R6
- Transaction Processing Facility (TPF) V4 (see Note 2)
- TCP/IP V3R2
- TCP/IP V3R1
- TCP/IP V2R4

• Controller-resident programs:
  - Emulation Program (EP) R14
  - Network Terminal Option (NTO) R11
  - Network Routing Facility (NRF) R9
  - X.25 NCP Packet Switching Interface (NPSI) V3R9
  - X.25 SNA Interconnection (XI) V2R4.2

• Controller RPQs:
  - AirLines Line Control RPQs (see Note 3)

Notes:
1. Channel attachment of ACF/TCAM V2R4 to the IBM 3745 requires the appropriate PTF on TCAM V2R4.
2. Either Type 5 or Type 2.1 attachment capability is provided. Type 5 attachment requires SNA Interconnection (SNI) support in the channel-attached NCP. Refer to Note 3 for related 3745 RPQs supported by NCP V7R8.
3. NCP V7R8, through the Airlines Line Control Interconnect feature, provides support for the 3745 RPQs listed below. The Airlines Control Program (ALCI) is a “no charge” RPQ feature offered by NCP. You no longer need to order and install separate media to operate this program. The ALCI code is now incorporated in the base ACF/NCP code. In order to identify the number of users, IBM still requires you to obtain an ALCI license by ordering the “no charge” ALCI feature number. Although the ALCI code is included in the new release of NCP V7R8, it is recommended that you reference the 3745 RPQs (listed below) for hardware requirements.

RPQ Number Controller

<table>
<thead>
<tr>
<th>RPQ Number</th>
<th>Controller</th>
</tr>
</thead>
<tbody>
<tr>
<td>7L1092</td>
<td>3745 Models 210, 310, 410, 610, 21A, 31A, 41A, 61A</td>
</tr>
<tr>
<td>7L1216</td>
<td>3745 Models 210, 310, 410, 610, 21A, 31A, 41A, 61A</td>
</tr>
<tr>
<td>7L1148</td>
<td>3745 Model 170</td>
</tr>
</tbody>
</table>

The following levels of ACF/NCP are supported as communicating with ACF/NCP Version 7 Release 8 as long as program services are available for the particular level of ACF/NCP.

- ACF/NCP V7R8
- ACF/NCP V7R7
- ACF/NCP V7R6
- ACF/NCP V7R5
- ACF/NCP V7R4
- ACF/NCP V7R3
- ACF/NCP V7R2
- ACF/NCP V7R1
- ACF/NCP V6R3
- ACF/NCP V6R2
- ACF/NCP V5R4
- ACF/NCP V4R3.1

Refer to the program directory for additional details relative to the compatibility requirements for ACF/NCP Version 7 Release 8 for OS/390 (MVS/ESA), VM/ESA, and VSE/ESA.
Planning Information

Customer Responsibilities: The ACF/NCP V7R8 for OS/390 (MVS), VM and ACF/SSP V4R8 for OS/390 (MVS), VM Service Update Package (SMC0019) will replace the ACF/NCP V7R8 for OS/390 (MVS), VM and ACF/SSP V4R8 for OS/390 (MVS), VM base-product tapes as of August 25, 2000, and will become the new base tapes. The new base tapes will be shipped from IBM Software Delivery and Fulfillment (SDF), after availability, on August 25, 2000.

The availability of ACF/NCP V7R8 for VSE and ACF/SSP V4R8 for VSE are not affected by this announcement.

The enhancements are also available for all users of ACF/NCP V7R8 (OS/390 (MVS), VM, VSE) and all users of ACF/SSP V4R8 (OS/390 (MVS), VM, VSE) via PTF service. Refer to the Software Requirements and Ordering Information sections of this announcement for additional information.

Direct Customer Support: Installation and Technical Support is provided by the S/390® Support Family. For more information on services available, call 800-IBM-4YOU (426-4968) and ask for the IBM Support Family Inside Sales.

Security, Auditability, and Control

If sensitive data is sent over external communications facilities, user management may wish to pursue the application of cryptography. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Customer Financing

IBM Global Financing offers attractive financing to credit-qualified commercial and government customers and Business Partners in more than 40 countries around the world. IBM Global Financing is provided by the IBM Credit Corporation in the United States. Offerings, rates, terms, and availability may vary by country. Contact your local IBM Global Financing organization. Country organizations are listed on the Web at:

http://www.financing.ibm.com

Ordering Information

Current Licensees

Current licensees of:
• ACF/NCP Version 7 (5648-063)
• ACF/SSP Version 4 for OS/390, MVS (5655-041)
• ACF/SSP Version 4 for VM (5654-009)

will be sent a program reorder form which may be returned directly to SDF. The mailing of these forms is scheduled to be completed by August 18, 2000. Program reorder forms returned to SDF will be processed within 10 working days of receipt. Current licensees of ACF/NCP V7 and ACF/SSP V4 can reorder and receive the product tapes listed below:
• ACF/NCP V7R8 SUP for OS/390 (MVS), VM (SMC0019) product tapes
• ACF/SSP V4R8 SUP for OS/390 (MVS) (SMC0019) product tape
• ACF/SSP V4R8 SUP for VM (SMC0019) product tape

The ACF/NCP V7R8 for VSE and ACF/SSP V4R8 for VSE product tapes are unaffected by this announcement.

Please note, the ACF/NCP V7R8 and ACF/SSP V4R8 service updates are also available for all operating system platforms, for example, OS/390 (MVS/ESA), VM/ESA, VSE/ESA via PTF service by contacting your Software Support Center.

Refer to the chart below that shows the service update enhancements by product (NCP, SSP), for each operating system environment and its associated APAR number.

<table>
<thead>
<tr>
<th>Service Update Enhancement</th>
<th>NCP VM, MVS APAR Number</th>
<th>NCP VSE APAR Number</th>
<th>SSP MVS APAR Number</th>
<th>SSP VM APAR Number</th>
<th>SSP VSE APAR Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR Outbound Data Queue Length</td>
<td>IR42166</td>
<td>IR42302</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Predefined TR Route</td>
<td>IR42305</td>
<td>IR42306</td>
<td>IR42372</td>
<td>IR42376</td>
<td>IR42379</td>
</tr>
<tr>
<td>Service Update Enhancement</td>
<td>NCP VM, MVS APAR Number</td>
<td>NCP VSE APAR Number</td>
<td>SSP MVS APAR Number</td>
<td>SSP VM APAR Number</td>
<td>SSP VSE APAR Number</td>
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</tr>
<tr>
<td>DYNPOOL Control Block Recovery</td>
<td>IR42308</td>
<td>IR42321</td>
<td>IR42373</td>
<td>IR42378</td>
<td>IR42379</td>
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<tr>
<td>LUs Alert Threshold</td>
<td>IR42460</td>
<td>IR42467</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>Switched SDLC Subarea Disconnect</td>
<td>IR41936</td>
<td>IR41941</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Dynamic Windowing for TIC3</td>
<td>IR42608</td>
<td>IR42611</td>
<td>IR42617</td>
<td>IR42618</td>
<td>IR42619</td>
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<tr>
<td>Partial Dump Format</td>
<td>N/A</td>
<td>NA</td>
<td>IR41661</td>
<td>IR42664</td>
<td>IR42665</td>
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<tr>
<td>Frame Relay IP Congestion Control</td>
<td>IR42059</td>
<td>IR42060</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>Diagnostic Codes</td>
<td>IR42370</td>
<td>IR42375</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Internal NCP Traces</td>
<td>IR42599</td>
<td>IR42601</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Extended X.25 Support</td>
<td>IR42600</td>
<td>IR42602</td>
<td>IR42660</td>
<td>IR42662</td>
<td>IR42663</td>
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**New Licensees**

**Ordering Information for Base ACF/NCP V7 Program (5648-063)**

For ordering information on the base program, ACF/NCP V7 (5648-063), refer to:
- Software Announcement 297-342, dated September 9, 1997
- Software Announcement 298-332, dated September 22, 1998
- Withdrawal Announcement 998-294, dated September 29, 1998
- Software Announcement 299-223, dated August 17, 1999

**Ordering Information for Base ACF/SSP V4 Programs**

- ACF/SSP V4 R8 for OS/390, MVS/ESA (5655-041)
- ACF/SSP V4 R8 for VM/ESA (5654-009)
- ACF/SSP V4 R8 for VSE/ESA (5686-064)

For ordering information on the above base programs, ACF/SSP V4, refer to:
- Software Announcement 293-623, dated October 28, 1993
- Software Announcement 298-355, dated September 29, 1998
- Withdrawal Announcement 998-294, dated September 29, 1998
- Software Announcement 299-052, dated February 22, 1999
- Software Announcement 299-222, dated August 17, 1999

Orders for new licenses will be accepted now.

Shipment will begin on the planned availability date.
Orders that ship prior to the planned availability date will receive ACF/NCP V7R8, ACF/SSP V4R8 without the service updates.

Orders that ship after the planned availability date will receive ACF/NCP V7R8, ACF/SSP V4R8 with the service updates.

New users of ACF/NCP Version 7 Release 8 should specify:

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New users of ACF/SSP Version 4 Release 8 should specify:

For OS/390, MVS/ESA

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Unlicensed Documentation: A memo, program directory, and one copy of the following publications will be supplied automatically with the basic machine-readable materials:

Publications for ACF/NCP V7R8

- Licensed Program Specifications — GC31-6226
- NCP Version 7 Migration Guide — SC30-4024
- NCP, SSP, and EP Resource Definition Guide — SC31-6223
- NCP, SSP, and EP Resource Definition Reference — SC31-6224
- Planning for NetView, NCP and VTAM — SC31-8063
- Planning for Integrated Networks — SC31-8062

Publications for ACF/SSP V4R8

- Licensed Program Specifications (OS/390, MVS/ESA) — GC31-6229
- Licensed Program Specifications (VM/ESA) — GC31-6227
- Licensed Program Specifications (VSE/ESA) — GC31-6230
- NCP, SSP, and EP Messages and Codes — SC31-6222

Displayable Softcopy Publications

ACF/NCP V7R8 and ACF/SSP V4R8 publications are also provided in displayable, softcopy form. All unlicensed and licensed manuals are included. The softcopy pubs are shipped on CD-ROM (LK2T-0414), IBM Online Library: IBM ACF/NCP, ACF/SSP, EP and X.25 NPSI and NTuneMON Softcopy Collection Kit. For your convenience, the CD-ROM also contains publications for several related products.

The first copy is available, at no additional charge, to licensees of basic materials of ACF/NCP (5648-063) by specifying feature number 7110.

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- Software Announcement 297-342, dated September 9, 1997
- Software Announcement 298-332, dated September 22, 1998

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