

IBM Z

*Hardware Management Console and
Support Element
Network Information Worksheet*



Note:

Before you use this information and the product it supports, read the information in “[Notices](#)” on page [11](#), and *IBM Systems Environmental Notices and User Guide*, Z125-5823.

This edition, GC28-6988-02, applies to the IBM Z. This edition replaces GC28-6988-01.

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About this publication

Use this worksheet to gather configuration information needed to install and configure the Hardware Management Console (HMC) and Support Element network for the IBM Z® (Z).

- Worksheet start pages
- HMC and SE worksheet tables.

Remote access must be enabled for each user ID. This is done with the **User Management** task using the **ACADMIN** user ID.

If the customer will allow Outbound Connectivity via the internet, you may have to provide SSL Proxy information. Obtain this information from the customer.

Revisions

A technical change to the text is indicated by a vertical line to the left of the change.

Related publications

Other IBM® publications that you might find helpful and that you should use along with this publication are in the following list. You can access the portable document format (PDF) files from Resource Link® at <http://www.ibm.com/servers/resourcelink> under the **Library** section.

- *8561 Installation Manual for Physical Planning*, GC28-7002
- *3907 Installation Manual for Physical Planning*, GC28-6974
- *3906 Installation Manual for Physical Planning*, GC28-6965
- *IBM z13s® Installation Manual for Physical Planning*, GC28-6953
- *IBM z13® Installation Manual for Physical Planning*, GC28-6938
- *Introduction to IP version 6 Technical Note*
- *zEnterprise® BC12 Installation Manual for Physical Planning*, GC28-6923
- *zEnterprise EC12 Installation Manual for Physical Planning*, GC28-6914
- *zEnterprise 114 Installation Manual for Physical Planning*, GC28-6907
- *zEnterprise 196 Installation Manual for Physical Planning*, GC28-6897
- *System z10® Business Class Installation Manual for Physical Planning*, GC28-6875
- *System z10 Enterprise Class Installation Manual for Physical Planning*, GC28-6865
- *Checklists and Must Reads information (z13®)*, SA1057
- *Checklists and Must Reads information (z13)*, SA1047
- *Checklists and Must Reads information (Rockhopper 2965)*, SA1055
- *Checklists and Must Reads information (Emperor 2965)*, SA1055
- *zEnterprise BC12 Systems Assurance Product Review (SAPR) Guide*, SA13-002
- *zEnterprise EC12 Systems Assurance Product Review (SAPR) Guide*, SA12-002
- *zEnterprise 114 Systems Assurance Product Review (SAPR) Guide*, SA11-002
- *zEnterprise 196 Systems Assurance Product Review (SAPR) Guide*, SA10-010
- *System z10 Business Class Systems Assurance Product Review (SAPR) Guide*, SA08-006
- *System z10 Enterprise Class Systems Assurance Product Review (SAPR) Guide*, SA06-016.

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Chapter 1. Understanding the network connections

The HMC is connected to a Service LAN which is used to manage the CPCs. The HMC is also connected to the customer or Open Environment for remote access.

This worksheet is not a network design tool. It assumes the customer has an idea on how the HMC and SE connections should be made. The intent of this worksheet is to ask enough questions to get the information you need to fill the installation panels for the HMC and SE network.

8561 introduces the Hardware Management Appliance (HMA) feature:

- The HMA feature allows the HMC and SE to run on the same physical hardware.
- The HMC and SE continue to have their own dedicated network connections.
- The network interfaces on the HMC component of the HMA appear as **em1** and **em2** rather than **eth0** and **eth1**.
- All other network configuration information on HMA consoles remain the same as standalone consoles.

2097 introduces support for IPv6 (TCP/IP Version 6):

- The demand for IPv6 support is growing and mandatory in some parts of the world.
- The availability of addresses in the IPv4 address space is becoming increasingly scarce (for example, 9.60.92.139).
- HMCs and SEs can now communicate using IPv4, IPv6 or both.
- IPv6 addresses are 16 bytes, written as 8 16-bit hex blocks separated by colons (see example below).

The screenshot shows the 'S15 Details - S15' configuration window with the 'Network Information' tab selected. It displays various network settings and a table of network configurations.

SNA address: IBM390PS.S15
Node ID: 05D - 03301
LAN interface 1 address: 40f2e9ce73ac (Ethernet)
LAN interface 2 address: 40f2e9ce73ad (Ethernet)

Name	Protocol	Type	Mask/Prefix	Primary Address	Alternate Address
Customer Network 1 - SE em3	IPv4		255.255.255.0	9.60.15.7	9.60.15.8
Customer Network 1 - SE em3	IPv6 Address 1	Link Local	64	fe80::42f2:e9ff:fece:73ac%eth1	fe80::42f2:e9ff:fecc:2ca4%eth1
Customer Network 2 - SE em4	IPv4		255.255.255.0	9.60.14.7	9.60.14.8

Buttons: OK, Apply, Change Options..., Cancel, Help

Note: All TCP/IP addresses on the network subnet MUST be unique.

Chapter 2. Worksheet start pages

<p>___ 001.</p>	<p>Is this a new HMC and CPC install or are we installing an HMC and or SE/CPC into an existing network?</p> <p>If new, go to step 002.</p> <p>If existing, go to step 006.</p>
<p>___ 002.</p>	<p>Are you using the default IP for the Service LAN - HMC eth0/em1 setup in the factory?</p> <p>If yes, no further work is required for eth0/em1. Attach HMC eth0/em1 and SE Interface 1 to the same LAN network. Continue with step 003 to configure the Customer or Open Environment HMC connections.</p> <p>If no, go to step 008.</p>
<p>___ 003.</p>	<p>Enter the fields below for the HMC Customer or Open Environment:</p> <p>Note: This information must be supplied by the customer.</p> <p>HMC Name: _____</p> <p>Domain Name: _____</p> <p>HMC to obtain IP address automatically on eth1/em2 as a DHCP Client?</p> <p>If yes, select Obtain IP Address Automatically in eth1/em2 LAN details.</p> <p>If no, select Specify an IP address and fill in information below:</p> <p>TCP/IP Interface Address: _____</p> <p>TCP/IP Interface Network Mask: _____</p> <p>Name Services: _____, _____</p> <p>Routing Gateway Address: _____ (select eth1/em1 in interface field)</p> <p>Other Routing Information: _____, _____ (optional)</p> <p>For additional HMCs, use the <i>HMC worksheet table</i> located in the HMC and SE worksheet tables section of this document.</p> <p>Continue with the next step.</p>
<p>___ 004.</p>	<p>Does the SE require Customer or Open Environment connections?</p> <p>If yes, continue with this step.</p> <p>If not, go to step 005.</p> <p>Enter the fields below for the SE Customer or Open Environment:</p> <p>Note: This information must be supplied by the Customer.</p> <p>TCP/IP Address 2 Information:</p> <p>Primary: _____</p> <p>Alternate: _____</p> <p>Network Mask: _____</p> <p>Routing Information (if applicable): _____</p> <p>Continue with the next step.</p>

___ 005.	This completes the information needed for the install. Use this information to complete the necessary table information located in the HMC and SE worksheet tables section of this document.
___ 006.	<p>Is this a new HMC install only? If yes, continue with this step. If no, go to step 007.</p> <p>This step assumes you are installing a new HMC into an existing HMC/Support Element network. Log on to an HMC that will be in the same network as this HMC with the user ID of ACSADMIN.</p> <p>Double-click Console Actions.</p> <p>In the Console Actions Work Area, double-click Hardware Management Console Settings.</p> <p>Double-click Customize Network Settings.</p> <p>Using these panels as a reference, fill in the fields below for the settings of the new HMC.</p> <p>Note: HMC Name and IP addresses entries must be different from any other HMC in that network.</p> <p>HMC Console Name: _____</p> <p>Domain Name: _____</p> <p><u>eth0/em1</u></p> <p>TCP/IP Interface 1 Address: _____</p> <p>TCP/IP Interface 1 Network Mask: _____</p> <p><u>eth1/em2</u></p> <p>HMC to obtain IP address automatically on eth1/em2 as a DHCP Client? If yes, select Obtain IP Address Automatically in eth1/em2 LAN details. If no, select Specify an IP address and fill in the information below:</p> <p>TCP/IP Interface 2 Address: _____</p> <p>TCP/IP Interface 2 Network Mask: _____</p> <p>Name Services: _____ , _____</p> <p>Routing Gateway Address: _____ (select eth1/em2 in interface field)</p> <p>Other Routing Information: _____ , _____ (optional)</p> <p>Continue with the step 005.</p>

<p>___ 007.</p>	<p>This step assumes you are installing a new CPC into an existing HMC/SE Network. Log on to an SE that will be in the same network as this SE with the user ID of ACSADMIN.</p> <p>Double-click Console Actions.</p> <p>In the Console Actions Work Area, double-click Support Element Console Settings.</p> <p>Double-click Customize Network Settings.</p> <p>Using these panels as a reference, fill in the fields below for the settings of the new SE.</p> <p>Note: SE Name and IP addresses entries must be different from any other SE in that network.</p> <p>Support Element Name: _____</p> <p>Address 1 Information (em3):</p> <p>Primary: _____</p> <p>Alternate: _____</p> <p>Network Mask: _____</p> <p>Address 2 Information (em4):</p> <p>Primary: _____</p> <p>Alternate: _____</p> <p>Network Mask: _____</p> <p>Routing Information (if applicable): _____</p>
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___ 008.	<p>This step assumes you are installing a new HMC and a new CPC and not using the default IP address on the Service LAN.</p> <p>Note: The customer must supply the following network information to correctly install the CPC.</p> <p><u>HMC Setup Information</u></p> <p>HMC Console Name: _____</p> <p>Domain Name: _____</p> <p>TCP/IP Interface 1 Address (eth0/em1): _____</p> <p>TCP/IP Interface 1 Network Mask: _____</p> <p>HMC to obtain IP address automatically on eth1/em2 as a DHCP Client? If yes, select Obtain IP Address Automatically in eth1/em2 LAN details. If no, select Specify an IP address and fill in the information below:</p> <p>TCP/IP Interface 2 Address (eth1/em2): _____</p> <p>TCP/IP Interface 2 Network Mask: _____</p> <p>Name Services (if applicable): _____ , _____</p> <p>Routing Gateway Address: _____ (select eth1/em2 in Gateway Device field)</p> <p>Other Routing Information (optional): _____ , _____</p> <p><u>Support Element Network Setup Information</u></p> <p>Support Element Name: _____</p> <p>Address 1 Information (em3):</p> <p>Primary: _____</p> <p>Alternate: _____</p> <p>Network Mask: _____</p> <p>Address 2 Information (em4) (not used on 2097 z10):</p> <p>Primary: _____</p> <p>Alternate: _____</p> <p>Network Mask: _____</p> <p>Routing Information (if applicable): _____</p> <p>Continue with step 005.</p>
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Chapter 3. HMC and SE worksheet tables

HMC worksheet table:

Standalone HMC Name _____

Domain Name _____

HMC IP Table	Standalone HMC	
	eth0	eth1 ¹
IP Address		
Network Mask		
Gateway Address *		
DHCP enabled		
Name Services		
Other Routing Information		
Customize Outbound Connectivity - Internet Access (Optional)		
Allow Internet Access	Y or N	
SSL Proxy Address		
Resolve IBM IP addresses on console	Y or N	
Authentication Proxy user ID		
Authentication Proxy Psswr		
Notes:		
1. The second adapter must be on a different subnet.		

HMA HMC1 worksheet table:

HMA HMC1 Name _____

Domain Name _____

HMA HMC1 IP Table	HMA HMC1	
	em1	em2 ¹
IP Address		
Network Mask		
Gateway Address *		
DHCP enabled		
Name Services		
Other Routing Information		
Customize Outbound Connectivity - Internet Access (Optional)		
Allow Internet Access	Y or N	
SSL Proxy Address		

HMA HMC1 IP Table	HMA HMC1	
	em1	em2 ¹
Resolve IBM IP addresses on console	Y or N	
Authentication Proxy user ID		
Authentication Proxy Psswrđ		
Notes:		
1. The second adapter must be on a different subnet.		

HMA HMC1 worksheet table:

HMA HMC2 Name _____

Domain Name _____

HMA HMC2 IP Table	HMA HMC2	
	em1	em2 ¹
IP Address		
Network Mask		
Gateway Address *		
DHCP enabled		
Name Services		
Other Routing Information		
Customize Outbound Connectivity - Internet Access (Optional)		
Allow Internet Access	Y or N	
SSL Proxy Address		
Resolve IBM IP addresses on console	Y or N	
Authentication Proxy user ID		
Authentication Proxy Psswrđ		
Notes:		
1. The second adapter must be on a different subnet.		

SE worksheet tables:

CPC Serial Number _____

SE IP Table	Primary Support Element	
	em3	em4 ¹
IP Address		
Network Mask		
Gateway Address *		
DHCP enabled		
Name Services		

SE IP Table	Primary Support Element	
	em3	em4¹
Notes:		
1. The second adapter must be on a different subnet.		

SE IP Table	Alternate Support Element	
	em3	em4¹
IP Address		
Network Mask		
Gateway Address *		
DHCP enabled		
Name Services		
Notes:		
1. The second adapter must be on a different subnet.		

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European Community contact:
IBM Deutschland GmbH
Technical Regulations, Department M372
IBM-Allee 1, 71139 Ehningen, Germany

Tele: +49 (0) 800 225 5423 or +49 (0) 180 331 3233

email: halloibm@de.ibm.com

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Technical Regulations, Abteilung M372
IBM-Allee 1, 71139 Ehningen, Germany
Tel: +49 (0) 800 225 5423 or +49 (0) 180 331 3233
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GC28-6988-02

