



IBM

TotalStorage Enterprise Storage Server



attached to SIEMENS BS2000

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Requirements

Operating System BS2000/OSD

Prerequisite for running BS2000 attached to ESS is **BS2000/OSD Version 4.0**.
ESCON connections only are supported

BS2000/OSD-BC

Open Server Dimension -
Basic Configuration

Current version: V4.0

Supported BS2000 Server (Hardware)

S1xx-model with ESCON channel	(S/390 based hardware)
SR2000 model with ESCON channel	(RISC-based hardware)

see links at the end of this document for details

ESS models

All ESS models with ESCON Hostbus adapter are supported

ESS microcode level

ESS must run with the following microcode level ==> 1.4.1.5 or higher

ESS Advanced Copy Services

PPRC and FLASHCOPY is supported using ESS Specialist

Order ESS attached to BS2000

At the moment you need to generate a *RPQ* for your individual customer situation. Please have this done before you place an order for an ESS.

Generating a *RPQ* is an easy task. You will get all the necessary information at the end of this announcement. As an *EHONE ID* is needed this can be done only by IBM employees

IBM internal questions regarding *RPQ* generation for *SSG* products can be directed to
Andreas Grottel, agrottel@de.ibm.com, Tel: +49 - 171 22 92 373

Business Partner please talk to your local IBM contact.

ESS can be configured to concurrently support BS2000 servers and other servers that are listed on the ESS Supported Server web site.



Configuration

Supported disk types and capacity planning

FSC Type	IBM Type	Cylinders	Capacities in GB			
			MAX	NK4	NK2	K2
D3490-10	3390-1	1113	0,946	0,821	0,718	0,65
D3490-20	3390-2	2226	1,892	1,641	1,436	1,299
D3490-30	3390-3	3339	2,838	2,462	2,154	1,949
D3492	3390-3R *1	3339	2,838	2,462	2,154	1,949
D3490-40	3390-9	10017	8,514	7,385	6,462	5,847

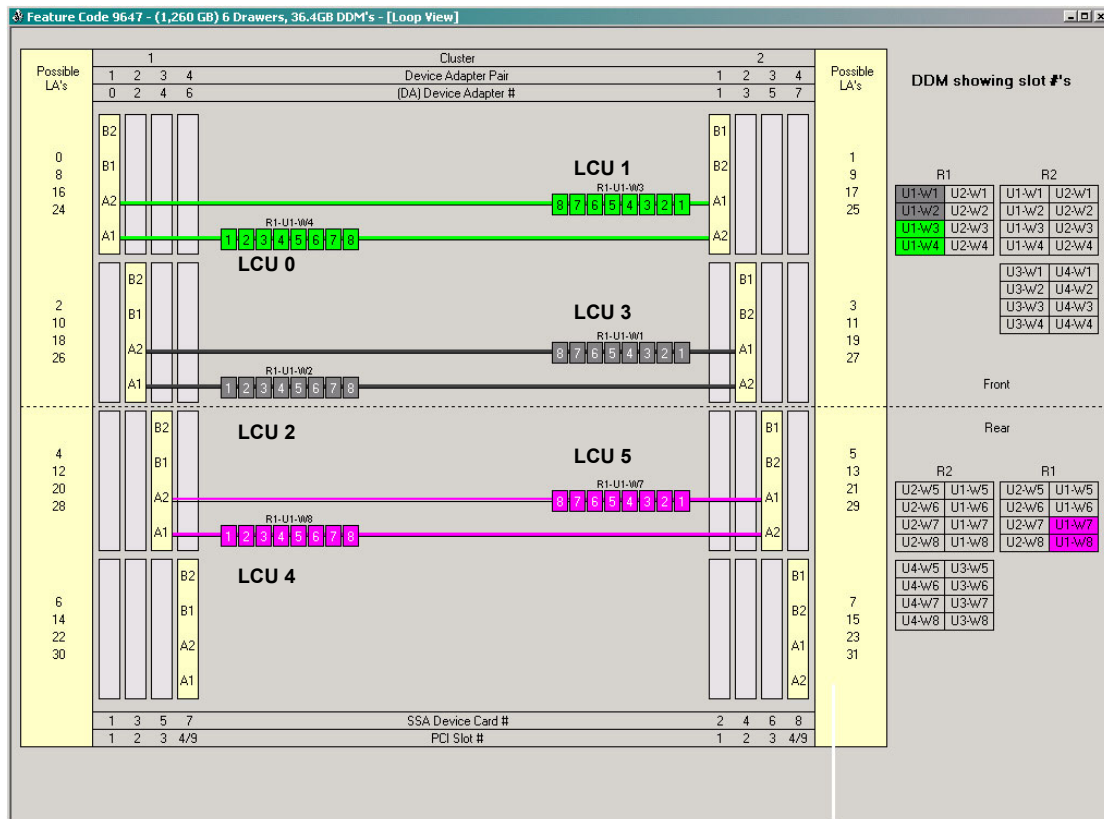
* 1 D3492 / 3390-3R is not supported by ESS

CV volumes

Supported:

- 1 – 3339 cyl. reported to BS2000 as 3390-3 (D3490-30)
- 3340 – 10017 cyl. reported to BS2000 as 3390-9 (D3490-40)

Configuration example: 2105-F20 with 6 LSS





Configuration example: IOCP (UGEN) 6 LCUs/4 CHPID/256 dev

```
• * CHANNEL
• CHN 80,IBS,A,MODE=CNC *IBM 2105
• CHN 81,IBS,A,MODE=CNC *IBM 2105
• CHN 82,IBS,A,MODE=CNC *IBM 2105
• CHN 83,IBS,A,MODE=CNC *IBM 2105
• CHN 84,IBS,A,MODE=CNC *IBM 2105
• CHN 85,IBS,A,MODE=CNC *IBM 2105
• CHN 86,IBS,A,MODE=CNC *IBM 2105
• CHN 87,IBS,A,MODE=CNC *IBM 2105
• *
• *CONTROLLER with CUADD= 0-F
• CTL C000,BLM,A,(80,0,I),(82,0,I),(84,0,I),(86,0,I),CUADD=0 LSS0 *SHARK
• CTL C100,BLM,A,(81,0,I),(83,0,I),(85,0,I),(87,0,I),CUADD=1 LSS1 *SHARK
• CTL C200,BLM,A,(80,0,I),(82,0,I),(84,0,I),(86,0,I),CUADD=2 LSS2 *SHARK
• CTL C300,BLM,A,(81,0,I),(83,0,I),(85,0,I),(87,0,I),CUADD=3 LSS3 *SHARK
• CTL C400,BLM,A,(80,0,I),(82,0,I),(84,0,I),(86,0,I),CUADD=4 LSS4 *SHARK
• CTL C500,BLM,A,(81,0,I),(83,0,I),(85,0,I),(87,0,I),CUADD=5 LSS5 *SHARK
• *
• * LOG-VOL HINTER CONTROLLERN MIT CUADD=0-F 4096 LOGICAL-VOLUMES max.
• DVC C000,AA,D,0E,(C000,I),MULT=256,AT=CTL AA * C000-C0FF LSS0
• DVC C100,AA,D,0E,(C100,I),MULT=256,AT=CTL AA * C100-C1FF LSS1
• DVC C200,AA,D,0E,(C200,I),MULT=256,AT=CTL AA * C200-C2FF LSS2
• DVC C300,AA,D,0E,(C300,I),MULT=256,AT=CTL AA * C300-C3FF LSS3
• DVC C400,AA,D,0E,(C400,I),MULT=256,AT=CTL AA * C400-C4FF LSS4
• DVC C500,AA,D,0E,(C500,I),MULT=256,AT=CTL AA * C500-C5FF LSS5
```

Configuration example: IOCP (UGEN) 6 LCUs/8 CHPID/128 dev

```
• * CHANNEL
• CHN 80,IBS,A,MODE=CNC *IBM 2105
• CHN 81,IBS,A,MODE=CNC *IBM 2105
• CHN 81,IBS,A,MODE=CNC *IBM 2105
• CHN 83,IBS,A,MODE=CNC *IBM 2105
• CHN 84,IBS,A,MODE=CNC *IBM 2105
• CHN 85,IBS,A,MODE=CNC *IBM 2105
• CHN 86,IBS,A,MODE=CNC *IBM 2105
• CHN 87,IBS,A,MODE=CNC *IBM 2105
• *
• *CONTROLLER MIT CUADD=0- F
• CTL C000,BLM,A,(80,0,I),(81,0,I),(81,0,I),(83,0,I),
• (84,0,I),(85,0,I),(86,0,I),(87,0,I),CUADD=0 LSS0 *SHARK
• CTL C100,BLM,A,(80,0,I),(81,0,I),(81,0,I),(83,0,I),
• (84,0,I),(85,0,I),(86,0,I),(87,0,I),CUADD=1 LSS1 *SHARK
• CTL C200,BLM,A,(80,0,I),(81,0,I),(81,0,I),(83,0,I),
• (84,0,I),(85,0,I),(86,0,I),(87,0,I),CUADD=2 LSS2 *SHARK
• CTL C300,BLM,A,(80,0,I),(81,0,I),(81,0,I),(83,0,I),
• (84,0,I),(85,0,I),(86,0,I),(87,0,I),CUADD=3 LSS3 *SHARK
• CTL C400,BLM,A,(80,0,I),(81,0,I),(81,0,I),(83,0,I),
• (84,0,I),(85,0,I),(86,0,I),(87,0,I),CUADD=4 LSS4 *SHARK
• CTL C500,BLM,A,(80,0,I),(81,0,I),(81,0,I),(83,0,I),
• (84,0,I),(85,0,I),(86,0,I),(87,0,I),CUADD=5 LSS5 *SHARK
• *
• * LOG-VOL HINTER CONTROLLERN MIT CUADD=0-F 4096 LOGICAL-VOLUMES.....
• DVC C000,AA,D,0E,(C000,I),MULT=128,AT=CTL AA * C000-C0FF LSS0
• DVC C100,AA,D,0E,(C100,I),MULT=128,AT=CTL AA * C100-C1FF LSS1
• DVC C200,AA,D,0E,(C200,I),MULT=128,AT=CTL AA * C200-C2FF LSS2
• DVC C300,AA,D,0E,(C300,I),MULT=128,AT=CTL AA * C300-C3FF LSS3
• DVC C400,AA,D,0E,(C400,I),MULT=128,AT=CTL AA * C400-C4FF LSS4
• DVC C500,AA,D,0E,(C500,I),MULT=128,AT=CTL AA * C500-C5FF LSS5
```



Recommended disk type definition for UGEN

Define for device (DVC) device type AA.

The system itself will figure out which type of diskdrive is installed/defined in the ESS.
"AA" is a dynamic disk type.

Example (device definition, UGEN):

```
• DVC C300 ,AA,D,0E,(C300,I),MULT=128 ,AT=CTL AA * C300-C3FF LSS3
```

AA = disk type

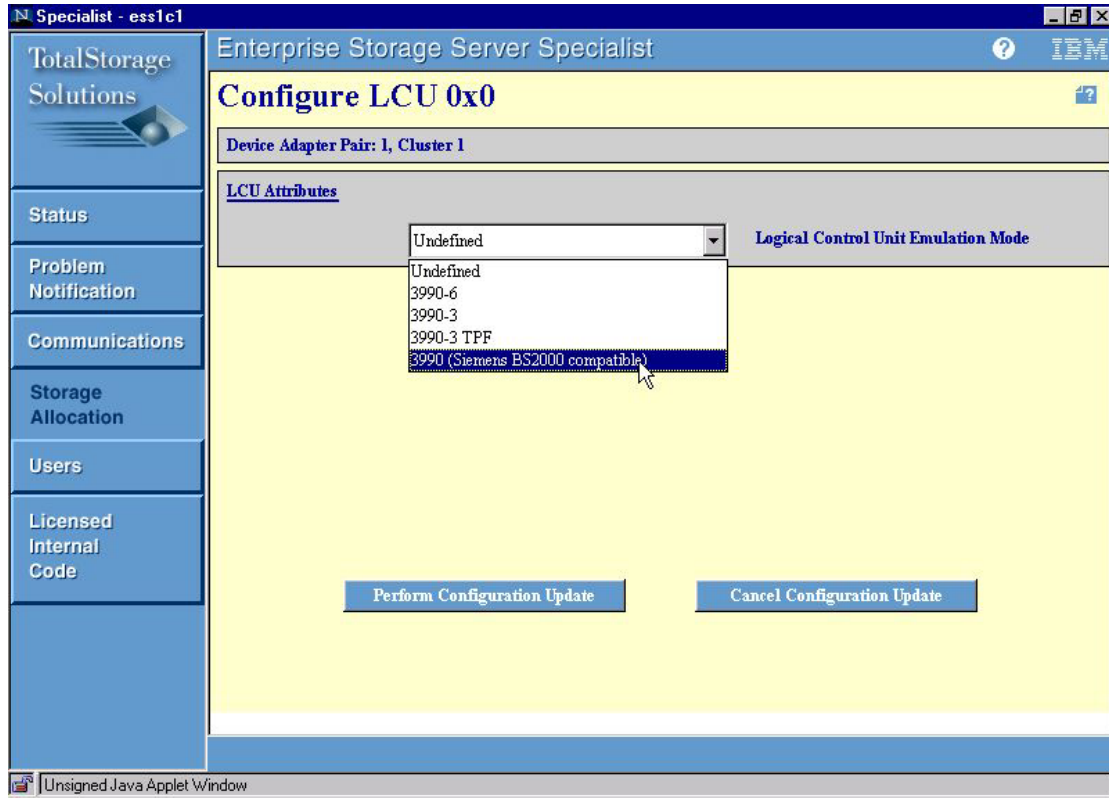
Configure original disk type for 3390-1, -2, -3 and model -9

<u>SIEMENS</u>	<u>IBM-Model</u>	<u>disk type for UGEN (IOCP)</u>
D3490-10	3390-1	-> A7
D3490-20	3390-2	-> 8F
D3490-30	3390-3	-> 89
D3490-40	3390-9	-> 8A



Supported controller type

LCU attributes: 3990 (Siemens BS2000 compatible)
Up to 16 LCUs each 256 addresses max.



Example: definition for LCU 0

S/390 and BS2000 can coexist on LCU level inside the same ESS.
Defined volumes in BS2000 can not be accessed from S/390 and vice versa.



Important links:

Storage Homepage

<http://www.ibm.com/storage/europe>

ESS - List of Supported Servers

<http://www.storage.ibm.com/hardsoft/products/ess/supserver.htm>

FUJITSU-SIEMENS List of BS2000 servers

http://www.fujitsu-siemens.com/servers/bs2000/bs2_us/server.htm