Estimating Entire Net-Work Storage Requirements

Given the complexity of today's data processing environments, it is almost impossible to provide methods to predict the exact storage requirements of a software product.

The following tables provides rough estimates about the fixed storage requirements of Entire Net-Work and its various components, ignoring operating system-related storage requirements, which typically vary from installation to installation.

Table 1 contains the amounts of storage obtained from the operating system based on parameter specification or appropriate defaults. It does not include storage areas that are directly related to the operating system, such as operating system control blocks, I/O-related buffers, and control blocks (except where they are part of Entire Net-Work program modules or data areas).

Table 2 contains the amounts of storage obtained from the Entire Net-Work buffer pools by the control module and the various line drivers.

Table 3 contains special storage requirements of the line drivers (such as special common system storage areas) in the various operating system environments.

- Table 1: Storage Areas Obtained from System
- Table 2: Storage Obtained from Entire Net-Work Buffer Pools
- Table 3: Special Storage Requirements of Line Drivers

Table 1: Storage Areas Obtained from System

Storage Area		**Platform**			
		z/OS	**VSE**	**VM**	**BS2000/OSD**
Request queue: (NC parameter+1)*192		AS(X)	SYS/Part	Virt.M	Comm.Pool
Attached buffers: (NAB parameter*4112)		AS(X)	SYS/Part	Virt.M	Comm.Pool
Entire Net-Work buffer pools*	Asynchronous buffers	AS(X)	Part	Virt.M	AS(X)
	Long-term buffers	AS	Part	Virt.M	AS
	Short-term buffers	AS(X)	Part	Virt.M	AS(X)
	Page-fixed buffers	AS	Part	Virt.M	AS
Entire Net-Work trace table		AS(X)	Part	Virt.M	AS(X)

Storage Area		Platform			
		z/OS	VSE	VM	BS2000/OSD
Entire Net-Work control blocks	general	AS	Part	Virt.M	AS
	Node	48	48	48	48
	Target	32	32	32	32
	Path	32	32	32	32
	CTCA DRIVER	544	---	---	---
	DCAM DRIVER	---	---	---	848
	IUCV DRIVER	---	4KB	---	---
	TCPI DRIVER	4KB	4KB	4KB	4KB
	TCPX DRIVER	4KB	4KB	4KB	4KB
	VTAM DRIVER	4KB	4KB	4KB	4KB
	XCF DRIVER	2048	---	---	---
	CTCA LINK	992	---	---	---
	DCAM LINK	---	---	---	56
	IUCV LINK	---	168	168	168
	TCPI LINK	1KB	1KB	1KB	1KB
	TCPX LINK	1KB	1KB	1KB	1KB
	VTAM LINK	256	256	256	256
	XCF LINK	2048	---	---	---
ADAIOR data areas	general	AS	Part	Virt.M	AS
	(for trace table, ECB list, etc.)	about 2KB	about 2KB	about 2KB	about 2KB

Abbreviation	Meaning
AS	from address space (private, below 16MB if XA or XS)
AS(X)	from address space (private, above 16MB if XA or XS)

Table 2: Storage Obtained from Entire Net-Work Buffer Pools

Statistic	Buffer Pool Types			
	Asynch	Long-term	Short-term	Page-fixed
Segment size	64	64	512	2KB or 4KB
Control module buffer pool usage		UB	MSG RPLY	
Queue manager buffer pool usage			BLK	BLK

Abbreviation	Meaning
BLK	Storage for outgoing transmission blocks (after compression and blocking), from short-term pool or page-fixed pool, depending on line driver requirements. Storage requirements for one transmission block include, in addition to the messages contained, 48 bytes for a transmission block header.
MSG	All messages sent or received; output messages kept until acknowledged by the access method, input messages kept until processed.
	The size of a message can be computed in the following way: 56 bytes for a message header + maxpath * 2 bytes for a node stack + 128 bytes for UB, ACB, etc. + size of FB, RB, SB, VB, IB to send or receive
RPLY	A reply buffer for each user request for a target on this node if the information returned by the target will not fit into the original message buffer (that is, if a large record buffer or ISN buffer is to be returned to the user).
UB	(only if 31-bit mode:) 64 bytes per user request for a target on this node, for the duration of the Adabas call.

Table 3: Special Storage Requirements of Line Drivers

Driver	Special Storage Requirements
TCPX	NUMUSERS*256 is initially allocated from buffer pool storage for the Active Client Table (ACT). This value may dynamically expand if required.

Note:
In addition to the storage estimates shown in the table, approximately 250KB storage is required for executable code.