IBM PC Local Area Network Planning Worksheet

I: 1st Cluster of 1 to 8 Nodes: (1-8)

	Cluste	er Loca	ition:	
	SNA?	PC?	Where?	Who
	-	-	-	-
1.)	Y	XT	Vacant	
2.)	N	AT	Vacant	
3.)	Y	PC1	Vacant	
4.)	N	PC2	Vacant	
5.)	Y	XT	Vacant	
5.)	N	etc	Vacant	
7.)	N	etc	Vacant	
3.)	N	etc	Vacant	
	-	-	-	-
	Qty.		Part No.	Description
	-	-	-	-
		No	etwork Publica	tions:
		-	63225	505PC Network Technical Reference
		-	99999	99DOS 3.1 Technical Reference
		1	Network Hardw	vare:
	:	1 -	51780	01PC Network Translator Unit
		-	15012	205PC SDLC Communications Adapter
			Node Hardwa	re:
	() -	64502	13PC Network Adapter
		-	99910	05BIOS Update Kit (old PCs only)
	N	Node C	able: (one cable	e per node)
		-	64502	34 25 ft. Network Cable
		-	64502	35 50 ft. Network Cable
		-	64502	36100 ft. Network Cable
		-	64502	237200 ft. Network Cable
			Node Softwar	re:
	() -	60242	211PC-DOS ver. 3.1

		0 - 0 -		.95PC Network Program 326PC Network SNA Emulation Program
-	-	-	-	-
			#DIV	//o!= Avg. Cost per Node Cluster
=	=	=	=	=
				IBM PC Local Area Network
				Planning Worksheet
II: 2	nd Clu	ster of	l to 8 Nodes: (9	-16)
	Clus	ster Loc	ation:	
	SNA	A? PC	? Where	Who
	-	-	-	-
1.)	Y	XT	Vacant	
2.)	N	AT	Vacant	
3.)	Y	PC1	Vacant	
4.)	N	PC2	Vacant	
5.)	Y	XT	Vacant	
6.)	N	etc	Vacant	
7.)	N	etc	Vacant	
8.)	N	etc	Vacant	
	-	_	-	-
	Qty	y.	Part No.	Description
	-	-	- . 1 D 11:	-
		N	letwork Publica	tions: 505PC Network Technical Reference
		- -		999DOS 3.1 Technical Reference
		- -	99998	99DOS 3.1 Technical Reference
			Network Hardw	/are·
		1 -		230PC Network Base Expander
		±	0-302	201 C Tremon Buse Expunder
	N	etwork	Cable - One of	the following:
		_		231 1 ft. Short-Distance Kit
		<u>-</u>	64502	232400 ft. Medium-Distance Kit

		-		6450233800 ft. Long Distance Kit
			Node Ha	ardware:
		0 -		6450213PC Network Adapter
				9991005BIOS Update Kit (old PCs only)
		Node (Cable: (on	e cable per node)
		_		6450234 25 ft. Network Cable
		_		6450235 50 ft. Network Cable
		_		6450236100 ft. Network Cable
		-		6450237200 ft. Network Cable
			Node So	oftware:
		0 -		6024211PC-DOS ver. 3.1
		0 -		6024195PC Network Program
		0 -		6322526PC Network SNA Emulation Program
-	-	-	-	-
				#DIV/0!= Avg. Cost per Node Cluster
=	=	=	=	=
				IBM PC Local Area Network
				Planning Worksheet
III: 3	ord Clu	ister of	1 to 8 Noc	des: (17-24)
	Clus	ster Loc	ation:	
	SNA	? PC	? Wh	ere Who
	-	-	-	-
1.)	Y	XT	Vacant	
2.)	N	AT	Vacant	
3.)	Y	PC1	Vacant	

4.)

5.)

6.)

7.)

N

Y

N

N

PC2

XT

etc

etc

Vacant

Vacant

Vacant

Vacant

N -	etc -	Vacant	
Q	ty.	Part No	Description
-	-	-	-
	1	Network Publi	
			22505PC Network Technical Reference
		999	99999DOS 3.1 Technical Reference
1	Network	Cable - One o	of the following:
	_	645	50231 1 ft. Short-Distance Kit
	_	645	50232400 ft. Medium-Distance Kit
		645	50233800 ft. Long Distance Kit
		Node Hardy	ware:
	0 -		50213PC Network Adapter
			21005BIOS Update Kit (old PCs only)
	Node (Cable: (one ca	ible per node)
		645	50234 25 ft. Network Cable
		645	50235 50 ft. Network Cable
		645	50236100 ft. Network Cable
		645	50237200 ft. Network Cable
		Node Softv	vare:
	0 -	602	24211PC-DOS ver. 3.1
	0 -	602	24195PC Network Program
	0 -	632	22526PC Network SNA Emulation Progra
-	-	- # V A	LUE!= Avg. Cost per Node Cluster

IV: 4th Cluster of 1 to 8 Nodes: (25-32)

Clı	ister Loc	ation:		
SN	A? PC?	Where	Who	
-	-	-	-	
Y	XT	Vacant		
N	AT	Vacant		
Y	PC1	Vacant		
N	PC2	Vacant		
Y	XT	Vacant		
N	etc	Vacant		
N	etc	Vacant		
N	etc	Vacant		
-	-	-	-	
Q	ty.	Part No.	Description	
-	-	-	-	
	N	etwork Public	eations:	
		6322	2505PC Network Technical Reference	
	_	9999	9999DOS 3.1 Technical Reference	
N	Network (Cable - One of	f the following:	
	_	6450	231 1 ft. Short-Distance Kit	
	_	6450	0232400 ft. Medium-Distance Kit	
		6450	233800 ft. Long Distance Kit	
		Node Hardw	rare:	
	0 -	6450	213PC Network Adapter	
		9991	L005BIOS Update Kit (old PCs only)	
	Node (Cable: (one cat	ple per node)	
	_	`	2234 25 ft. Network Cable	
		6450	0235 50 ft. Network Cable	
	_		0236100 ft. Network Cable	
	_ _ •		2237200 ft. Network Cable	
		Node Softwa	oro:	
	0			
	0 -		4211PC-DOS ver. 3.1	
	0 -	6024	1195PC Network Program	

		0 -		6322526PC Network SNA Emula	ation Program
-	-	-	-	-	
				#VALUE!= Avg. Cost per Node	Cluster
=	=	=	=	=	

Bill of Materials

P/N Description 1501205PC SDLC Communications Adapter 5178001PC Network Translator Unit 6024195PC Network Program 6024211PC-DOS ver. 3.1 6322505PC Network Technical Reference 6322526PC Network SNA Emulation Program 6450213PC Network Adapter 6450230PC Network Base Expander 6450231 1 ft. Short-Distance Kit 6450232400 ft. Medium-Distance Kit 6450233800 ft. Long Distance Kit 6450234 25 ft. Network Cable 6450235 50 ft. Network Cable 6450236100 ft. Network Cable 6450237200 ft. Network Cable 9991005BIOS Update Kit (old PCs only) 999999DOS 3.1 Technical Reference

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Release 1.0 - No Macros

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Note: The best strategy for populating clusters is to leave a few vacant nodes per cluster, providing room to grow. For example, if 8 nodes will be in the first phase of the network, put 4 on each of two clusters. Then 4 empty nodes on each half filled cluster can be "backfilled" as needs warrant. This will keep the clusters more geographically tight, minimizing spaghetti wiring as nodes are added.

The incremental cost of providing for expansion in this manner is negligible. Work through a few configurations and you will see that after 6-8 nodes, the cost stabilizes at \$850 - 1000, per node (or \$1250 to 1400 with SNA emulation), depending on wiring runs, options, etc.

FOOTNOTES

- (#1) These publications are unnecessary except for a very sophisticated user, particularly a programmer developing software for the network and PCs. Extremely rarely will an end user need access to these manuals. Perhaps one set for reference for all users will due except for a network of users involved in software development.
- (#2) These items required only to provide mainframe communications to the nodes on the network. Purchase one license for each attached PC that will be used for terminal emulation. Only one communications adapter required for each 32 emulation sessions. More than 12 concurrent sessions, however, will require dedicated PC(s) to function as communications server(s) due to response degradation.
- (#3) PCs made before 10/26/82 (serial numbers 0300960 or lower) must have the BIOS Update Kit installed to operate on the IBM PC Local Area Network.
- (#4) The IBM PC Network Program is not ABSOLUTELY required for minimal access to some network services. However, it is HIGHLY recommended for full network access and access to future network applications.

Node Totals:		
-	-	
With SNA:		0
Filled:		0

Vacant:

\$ each	\$ extended
195	#VALUE!(#1)
DOS 3.1 Techni	#VALUE!(#1)
595	595
240	#VALUE!(#2)
695	0
BIOS Update Kil	#VALUE!(#3)
29	#VALUE!
39	#VALUE!
59	#VALUE!
99	#VALUE!

	75	0(#4
	375	0(#2
-	-	
Total:		595

Node Totals:

- -

With SNA: 0

Filled: 0

Vacant: 8

\$ each	\$ extended
-	
195 DOS 3.1 Techni	#VALUE!(#1 #VALUE!(#1
59	59
39	#VALUE!
79	#VALUE!

89 #VALUE!

695 0 BIOS Update Kil #VALUE!(#3)

29 #VALUE!39 #VALUE!59 #VALUE!99 #VALUE!

65 0 75 0(#4) 375 0(#2)

Total: 59

Node Totals:

_

With SNA: 0

Filled: 0

Vacant: 8

\$ each	\$ extended
195	#VALUE!(#1)
DOS 3.1 Techni	#VALUE!(#1)
39	#VALUE!
79	#VALUE!
89	#VALUE!
695	0
BIOS Update Kit	#VALUE!(#3)
29	#VALUE!
39	#VALUE!
59	#VALUE!
99	#VALUE!
65	0
75	0(#4)
375	0(#2)
Total:	#VALUE!
= =	

Node Totals:		
- With SNA:	-	0
Filled:		0
Vacant:		8

\$ each	\$ extended
-	
195	#VALUE!(#1)
DOS 3.1 Techni	#VALUE!(#1)
39	#VALUE!
79	#VALUE!
89	#VALUE!
695	0
BIOS Update Kii	#VALUE!(#3)
29	#VALUE!
39	#VALUE!
59	#VALUE!
99	#VALUE!
65	0
75	0(#4)

375 0(#2)
- - - Total: #VALUE!

Network Network \$ each Quantity \$extended 240_ #VALUE! 1 595 595 0 0 75 65 0 0 #VALUE! 195_ 0 375 0 695 0 0 59 1 59 39 **#VALUE! #VALUE!** 79 **#VALUE!** #VALUE! #VALUE! 89 **#VALUE!** 29 #VALUE! **#VALUE!** 39 #VALUE! **#VALUE!** #VALUE! 59 #VALUE! #VALUE! 99 #VALUE! n/a #VALUE! #VALUE! n/a #VALUE! **#VALUE!** 654 =