NC DIT NORTH CAROLINA DEPARTMENT OF INFORMATION TECHNOLOGY

04/18/2019 DIT End User IP Request Template

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Status of Internet Service connection

1a. New Connection Request :
Planned Installation Date :
1b. Existing DIT Customer :
Site # :
Approximate Date of Service Connection :

Technical POC

2a. Name (Last, First) :
2b. Title :
2c. Postal address (Street, City, State, Zip) :
2c. :
2c. :
2c. :
2d. Phone Number :
2e. E-Mailbox :

Organization Information

3a. Name of Organization :
3b. Postal address of Organization :
3b. :
3b. :
3b. :

Previous Assignment History

4. Previously assigned addresses :
Explain how addresses have been utilized

4a. Number of hosts :
4b. Number of subnets :
4c. Subnet mask :

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Justification for Request

5. Type of network :

5. Host Information
5a. Initially :
5b. Within 1 year :

5. Subnet Information
5c. Initially :
5d. Within one year :

Address Request and Additional Documentation

6a. Number of addresses requested :
6b. Additional supporting justification :

If requesting more addresses than a /28 (16 or more host addresses), you are required to submit the network topology plan in the format of the example below:

Subnet#	Subnet Mask	Max	Now	1yr	Description
1.0	255.255.255.192	62	30	50	Network Group (use 0!)
1.1	255.255.255.192	62	28	55	Engineering
1.2	255.255.255.192	62	25	48	Manufacturing
1.3	255.255.255.192	62	35	58	Management
	Totals	248	118	211	

If requesting a /24 (Full Class C – 255 host addresses) a network diagram should also be included with your request.

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INSTRUCTIONS FOR REQUESTING INTERNET PROTOCOL (IP) NUMBERS

Completion of the End User request template above is required to obtain Internet Protocol (IP) Network Numbers.

NOTE: Your organization will be assigned address space only for an immediate to one (1) year requirement.

Section 1. Internet Connection

1a. New Internet connection request and planned installation date. Please supply information that certifies your official DIT service request and the approximate installation date of your connection to the Internet.

1b. Existing DIT Internet access customer Please provide the existing DIT WAN Service Site # and the approximate date of the service connection.

Section 2. Technical Point of Contact (POC)

The technical POC is the person responsible for the technical aspects of maintaining an organization's IP address space. This person should be able to answer any utilization questions DIT may have.

2a. Name.
Place the last name and the first name of the POC on the same line, separated by a comma as shown: Last name, First name

EXAMPLE:
Smith, John

2b. Title.
List the POC's title, if known.

2c. Postal Address.
Provide the physical address of the POC at the organization requesting IP address space. When completing question 2c, place the city, state, and zip code on separate lines.

EXAMPLE: 111 Main Street
Town Center
NC
27609

2d. Phone Number.
You must list the complete telephone number of the POC, including area code.

2e. E-mailbox.
You must provide the E-mail address of the POC at the organization requesting the additional IP address space.

Section 3. Organizational Information

3a. Name of Organization.
Provide the name and physical address of the organization that will be utilizing the IP address space.

3b. Postal Address.
Refer to item 2c above.

Section 4. Previous Assignment History

4. Please list all IP addresses previously assigned to your entire organization. Please respond to items 4a through 4c with a specific description regarding the utilization of those addresses. Repeat as needed.

	Example: 149.168.1.64
4a. Number of hosts.	55
4b. Number of subnets.	1
4c. Subnet mask.	255.255.255.192

Section 5. Justification for Request

5. Type of Network.
Networks are characterized as being one of four types: Research, Educational, Government-Non Defense or Commercial. Which type is this network?

5a. Initial Host Information
Please include here your estimates for the initial size of the network.

5b. Host Information - Within 1 year
Please include here your estimates for the size the network is projected to be one year from now. A "host" is defined as any node or any device (e.g, server, workstation or printer) that will be assigned an address from the host portion of the network number.

5c. Initial Subnet Information
Include the number of subnets that will be supported by the network initially.

5d. Subnet Information - Within 1 year
Include the number of subnets projected to be supported by the network one year from now.

Section 6. Number of Addresses Requested and Additional Supporting Documentation

6a. Number of Addresses Requested.
Please state exactly how many addresses you are requesting.

6b. Additional justification
Please state exactly how many addresses you are requesting along with any additional justification necessary. As stated on the template, if you are requesting /28 or more, you will need to complete the network topology plan in the format shown on the template.

Note: All requests for a /24 or more must submit the network topology plan and a copy of your network engineering diagram.

Address space is issued based on the utilization of VLSM per RFC 2050.

EXAMPLE:

Subnet#	Subnet Mask	Max	Now	1yr	Description
1.0	255.255.255.128	128	102	116	Operations
1.1	255.255.255.192	64	44	48	Engineering
1.2	255.255.255.240	16	12	13	Management
1.3	255.255.255.240	16	11	14	Sales
1.4	255.255.255.240	16	10	15	Support
1.5	255.255.255.240	16	0	0	Spare
Totals		256	179	206	

NOTE: This represents one /24 (Class C) using Variable Length Subnet Masking (VLSM).

NOTE: Typical CIDR breakdowns

/24	255.255.255.0	Full Class C	255 addresses
/25	255.255.255.128	Partial	128 addresses
/26	255.255.255.192	Partial	64 addresses
/27	255.255.255.224	Partial	32 addresses
/28	255.255.255.240	Partial	16 addresses
/29	255.255.255.248	Partial	8 addresses
/30	255.255.255.252	Partial	4 addresses

For further information contact a DIT Network Services analyst at 919-981-5197 or 1-800-722-3946.