

ESnet Site Coordinator Roles and Responsibilities

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1 Executive Summary

Historically, the ESnet Site Coordinator role has provided a single point of contact between a DOE Laboratory, or other site that uses ESnet, and the ESnet staff. This liaison relationship has been essential to the reliable and smooth operation of the combined ESnet-DOE Labs/sites networking environment.

This paper describes a process to insure that each site has a correctly identified Site Coordinator, and identifies the necessity of, and procedures to, delegate specific Site Coordinator functions in order to ensure continuity of the role. By establishing this framework, a more robust response to DOE Labs/site real time issues will be possible. The level of completeness by the site in populating this framework will determine the ability of ESnet to respond to a site's needs in timely fashion. In summary:

- The role of Site Coordinator must formally be filled by site management. The Site Coordinator is the person responsible for initiating or approving any changes in the network services provided by ESnet, as well as the consequences of such requests.
- The Site Coordinator must supply a site Security Contact for ESnet's use.
- The Site Coordinator must supply the information necessary to register an assignment of ESnet's address space to the site.
- The Site Coordinator must supply a Network Operations Contact (Network Operations Center, on-call number, etc) commensurate with the desired level of ESnet support.
- The Site Coordinator must give ESnet a pointer to a locally maintained mail list for the distribution of ESnet status and outage messages.
- The Site Coordinator may name an Alternate Site Coordinator.
- The Site Coordinator may supply a separate DNS contact for managing the site's DNS requests.
- The Site Coordinator may supply the names of additional Technical Contacts to interact with ESnet Operational Personnel.
- The Site Coordinator is responsible for the traceability and the physical security of the ESnet equipment at the site, and must promptly respond to information requests by LBNL Property Management representatives during inventories of ESnet equipment.

2 Background

Originally there were 19 sites connected to ESnet. As ESnet personnel were not initially familiar with the appropriate site networking personnel, DOE sent a letter to the management of each Laboratory or University requesting that they appoint an ESnet Site Coordinator. This formally appointed contact was empowered to establish and monitor the ESnet connection. It soon became apparent that several issues needed to be addressed:

- There was no formal mechanism for appointing a new Site Coordinator when the old one left. The de facto procedure of the outgoing coordinator informing ESnet of the identity of the new coordinator has not always worked smoothly.
- There was no formal mechanism for the appointment of a site coordinator at a new ESnet site. ESnet staff determined a primary technical contact for the site. This primary contact was treated the same as a Site Coordinator.

Over the years, various functions needed to ensure the smooth operation of the network have been identified and added to the responsibilities of the Site Coordinator. One of the responsibilities is to serve as a single point of contact for the site in the following types of requests from the site to ESnet:

- Assignment of new IP address space
- Announcement of new IP prefixes (for routing)
- DNS secondary services
- Emergency packet filters for the site
- Changes to the routing of the site's traffic

This single point of approval ensures that a responsible site person understands the requests, ensures that the requests are consistent with Site policy, ESnet policy and the ESnet AUP.

In addition to the Site Coordinators there have been site "Technical Contacts." The Technical Contacts served as liaison between the Site users and the ESnet personnel.

These roles and associated responsibilities have worked reasonably well in the past. The Site Coordinator role gave ESnet personnel a single point of contact who can speak authoritatively for the site. The Site Technical Contacts provided a good interface between the site LANs and the ESnet WAN.

There have been several drawbacks however:

- The appointment and succession procedures for a Site Coordinator are not clear.
- There is no formal mechanism for a backup Site Coordinator to ensure a continuously available site contact
- The Site Coordinator has not been able to delegate simple tasks (such as approving DNS requests)

3 Improvements in the Process

In order to meet the increasing demand for highly reliable network services to the sites, ESnet proposes a more formal definition of the role of the Site Coordinator, including how some responsibilities of this role may be delegated, and allows for the appointment of an Alternate Site Coordinator. Additionally, we propose a process for keeping the list of Site Coordinators current.

ESnet management requires that each site have a Site Coordinator as defined here, and that the “Primary Contact” designation be retired.

New process:

1) The role of “Site Coordinator” includes the following aspects:

- The Site Coordinator is appointed by Site Management and must have the authority to insure that any requests will meet the Site’s policies, ESnet’s policies and the ESnet AUP.
The appointment should be made by Laboratory (or Site) management with the authority and responsibility for site networking. At a DOE National Laboratory, the appointment would likely be made by the Director for Computing or the CIO.
- The identification of a Site Coordinator for a new site will be a part of the process of approving a new site.
- Changes in the personnel who fill the Site Coordinator role must be approved by the responsible site manager, and must be communicated by the site manager to ESnet management (routing@es.net) and to the chairman of the ESnet Site Coordinating Committee (ESCC).
- The Site Coordinator represents the site organization on the ESCC and participates in ESCC meetings. The ESCC - <http://www1.es.net/escc/> - is the technical forum where community practice related to the smooth operation of the ESnet-Labs/sites joint networking endeavor is established. The ESCC meets 2-3 times a year.
- The Site Coordinator makes or approves requests to the ESnet management and staff for changes to the operation of the site’s network related functionality as it relates to ESnet.
- The Site Coordinator’s initiation or approval of a request to ESnet indicates the request will be consistent with the Site’s policy. ESnet policy and the ESnet AUP. (<http://www.es.net/hypertext/esnet-aup.html>).

2) Security Contacts

- Occasionally, ESnet receives notification that a host at a site has a security problem. Examples of the problems reported are Spam Relays, Worm/Virus infections, and possible distribution of copyrighted material. The Site Coordinator must supply ESnet with a contact that can receive and act on such notifications. Since the Security contact must be able to rapidly respond to incident reports, the preferred contact is a mail list.

3) Assignment of ESnet’s address space to a site.

- A site may request and be assigned a block of addresses from ESnet’s address space. The Site coordinator must supply ESnet with the information necessary to register the assignment with the American Registry for Internet Numbers (ARIN).

4) The Site Coordinator must supply a contact for resolution of network problems.

- ESnet staff may need to contact a site for a variety of reasons such as confirming a site power outage, reporting network problems with a host internal to a site, etc. Occasionally an ESnet access problem cannot be fixed without the assistance of a site representative doing things such as, power cycling a router, moving a cable, etc. The Site Coordinator must supply a contact for network problems and specify the hours of availability. Typically this would be a Network Operations Center mailer. While ESnet will monitor

the site's network access 24x7x365, it is recognized that not all sites will have that level of local coverage. In this case the Site Coordinator may supply an off-hours contact.

5) ESnet status mailer

- The Site Coordinator must provide ESnet with a pointer to a locally maintained mail list for the distribution of ESnet status messages.

6) Delegation of general responsibility

- The Site Coordinator, or responsible site manager, may name one other person to serve as an Alternate Site Coordinator. While this person may make the same requests as a Site Coordinator, the ultimate responsibility for an Alternate's actions rest with the Site Coordinator.
- A request or approval of a request, by either the Site Coordinator or the Alternate will be acceptable to ESnet.

7) Delegation of responsibility for DNS modifications

- Since DNS operation can involve ongoing dialog between site technical personnel and ESnet staff, the Site Coordinator may name one person as a DNS Contact to make DNS requests, including requests involving new top-level domains. Again, ultimate responsibility for the DNS Contact action rests with the Site Coordinator. Since the DNS contact requests services from ESnet, the contact must be an individual.

8) Site Technical Contacts

- The role of the Site Technical Contact is to serve as a liaison between the Site users and the ESnet network personnel. These contacts are typically senior network engineers with hands-on responsibility for the Site's network. The ESnet Site Coordinator may name several network engineers to serve as Site Technical Contacts. Examples of site Technical contacts are Network Contact, Multicast Contact, etc. These contacts may be individuals or mail lists.

10) Property Management

- The Site Coordinator is responsible for getting the required ESnet equipment MOU signed and maintaining its currency.
- The site Coordinator is responsible for the physical tracking and security of the ESnet equipment at the site.
- LBNL property management conducts routine inventories of ESnet equipment at Sites. The Site Coordinator must promptly respond to requests by LBNL Property Management representatives for either verification of or physical access to ESnet equipment at the Site.

4 ESnet's Responsibilities

- ESnet will maintain the current list of Site Coordinators, Alternates, Technical Contacts, and DNS Contacts in our internal Contact Database. This database will generate an email list, site-coordinators@es.net, to which ESnet will send mail semi-annually requesting an acknowledgment that the recipient is still the active Site Coordinator, and to confirm delegations of Alternates and DNS Contacts. Once a complete list is generated, ESnet will place it on the ESnet web server under on the ESnet Site Coordinators private page.

It is the ESCC Chairperson's responsibility to maintain the ESCC e-mail alias, `escc@es.net`, which will include `site-coordinators@es.net`.

- In order to initially populate `site-coordinators@es.net`, ESnet will send the above mentioned correspondence to those currently in our database and make corrections based on responses. As this is integral to the operation of ESnet, ESnet will initially populate and keep the list current. However, over the next year, a site's management must appoint, or re-appoint, a Site Coordinator with the authority to function as outlined in the memo.
- ESnet will create a protected web page containing the contact information from the internal database. The page will be available to Site Coordinators and other site contacts. The page may be made available to other parties with the concurrence of both ESnet management and the Site Coordinator.
- Site Coordinators will be copied on e-mail to site contacts.

5 Summary

Site Role	Authority	Responsibility
Site Coordinator (SC)	From senior site m'gmt	<ul style="list-style-type: none"> • Primary ESnet POC • Requesting/approving changes to ESnet configuration for the site • ESnet property management • Must be an individual
Site Coordinator Alternate	SC should designate	<ul style="list-style-type: none"> • Provide continuity of network decision making in absence of site coordinator • Must be an individual
Network Operations POC	SC will delegate	<ul style="list-style-type: none"> • A contact for Site network/access problem resolution • Should be a continuously monitored mailing list
Security POC	SC will delegate	<ul style="list-style-type: none"> • Responding to ESnet reported security issues • Should be a continuously monitored mailing list
DNS Contact	SC may delegate	<ul style="list-style-type: none"> • Requesting and making changes to DNS • Must be an individual
Technical Contact	SC may delegate	<ul style="list-style-type: none"> • Provide Site networking expertise to interface with the ESnet Staff • Should be individuals.