

DRAFT

Proposed DC-TAC Recommendations for the Basic NOC Information Services

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The DC-TAC recommends that CENIC provide the following documentation and information to the campuses using the CalREN-DC and CalREN-HPR network regarding the network infrastructure, design, services, practices, and equipment.

The DC-TAC recognizes that the CalREN NOC has already implemented some of these recommendations and is in the process of implementing others.

- Network Maps
 - Updated monthly (depending on rate of change TBD)
 - Layer 1 – Fiber routes
 - Layer 2
 - Waves, end to end
 - Ethernet topology
 - Layer 3 – Beyond InterMapper
 - Include “last update” info on all maps
 - Points of demarcation between CENIC and the campus network.
 - Password protected??
- Performance and Usage
 - **ISP Drain Usage Reports**
 - Percent availability and reachability of various CENIC-managed network services.
 - Campus access infrastructure (by campus).
 - Campus access infrastructure redundancy (by campus).
 - CalREN backbone nodes (by node).
 - ISP drains (by drain).
 - Scheduled and unplanned downtime.
 - “Average / peak / 95 percentile” utilization of various CENIC-manage network objects (e.g., access links, access routers, gatekeepers, MCUs, etc.) as appropriate.
 - Packets/second
 - Errored seconds
 - Error counts by type (packet loss, CRC, protocol violations, etc.)
 - Octets/second
 - Packet loss
 - Latency
 - Jitter
 - Total throughput of a router (packets switched);

DC-TAC Recommendations
Basic NOC Information Services

- Link latency
- Archived performance data (i.e., data warehouse)
 - Maintain and provide a central repository of information for customers about the operation and reliability of the CalREN networks.
 - Monthly ISP Usage Reports
 - Monthly NOC Reports
- NOC
 - Trouble Ticket Activity Reporting
 - Weekly summary of new tickets opened.
 - A list of open problems (weekly) indicating the current stage of problem resolution, the severity/priority, and the time ticket has been open.
 - A list of tickets closed with a brief summary of their cause(s) and ultimate resolution.
 - An aging report of tickets showing any escalation action
 - Percentage of sites/users affected by an incident (e.g., out of service).
 - Percent of sites without a trouble call during reporting period.
 - Trouble Ticket Response Time Reporting
 - Expected call time experience by callers before speaking to a human and percent of calls achieving this objective.
 - Expected resolution time for various classifications of trouble tickets and the percent achieving this objective.
 - Percent of trouble tickets handled according to published escalation procedures for:
 - Communicating trouble ticket numbers,
 - Status of trouble tickets, and
 - Response to tickets.
- Change Management
 - Appropriate campus notification and documentation of any CENIC-performed installation, adds, moves, or changes as defined in the NOC RFP or recommended by the DC and HPR TACs
- Communication Methods
 - Ops-announce list
 - Ops-problem-detail list
 - Recorded phone message
 - Broadcast FAX to customer NOCs.
 - Mechanism to allow customers to obtain detailed status on tickets they have submitted.
 - E-mail notification to submitting customer when activity is logged against his or her trouble ticket.
 - Web