

IEPM-BW V4 project requirements

Functional Requirements:

This page contains the gathered requirement for IEPM-BW V4.

1. Probe multiple destinations using various active network monitoring tools e.g. ping, traceroute, pathneck, iperf, thrulay, etc.
2. Archive the result from each probing tool.
3. There should be a standard interfaces through which new tools can be added to the system without effecting the performace of already exisiting tools in a system.
4. There should be two types of nodes i.e. Monitoring and Client nodes. Monitoring nodes should be those who will probe the clients. The client nodes will only respond for the probes. Client nodes will not be active in case of Singled-Sided tools e.g. traceroute and ping.
5. There will be one Administrator Monitoring Site, who will be responsible to add and delete new tools to the system. It will have an authority to change the behaviour of other sites. For instance, Administrator site should be able to change the probing destination list of any Monitoring site.
6. All Monitoring site will provide a standard interface through which administrator will communicate with them.
7. Publish the archive data using SOAP in a standard NMWG schema.
8. Create an NMWG schema for the tools which doesn't have defined schema.

Non-Functional Requirements

1. Archived data should be in 3rd degree normalized relational database.
2. Configuration data e.g. destination nodes, tool's options, to name few should be stored in XML files instead of database. The example for storing destination nodes in xml is show [here](#).
3. Each result parameter of a tool should be stored in separate field in database. For example, It shouldn't store the raw string output from traceroute in a single field in database. It should store, each hop with its three different RTT in a separate fields.
4. A scheduler should not run heavy tools in parralel with light tools. Heavy tools means those who are more network intrusive then others. E.g. iPerf is more network intrusive then ping.
5. There should be atleast 30 secs time difference between scheduling of two probes.