



Recomendations for Transport Port Uses

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Purpose

- BCP advice to ***protocol designers***
 - Encourage port conservation
 - Encourage use of existing services
 - Discourage ‘reinventing the wheel’
 - Clarify how to describe a service in an application and/or ID
- **NOT**
 - Direction to the IESG or Expert Review team



Summary Advice (1)

- **User/system port distinction:**
 - Designers SHOULD NOT ask for system ports
 - Implementers SHOULD enforce privileged system access
- **Security:**
 - New services SHOULD support security
 - Designers SHOULD avoid creating new insecure services
 - Implementers SHOULD NOT rely on number for security
 - Implementers SHOULD expect to be attacked
- **Version numbers:**
 - Service SHOULD include version support
 - Service name and description SHOULD NOT include version number info.
- **Specification writers:**
 - Documentation SHOULD use symbolic names (e.g., placeholders) for port numbers and service names until IANA assignment is complete



Summary Advice (2)

- Support for different transports:
 - Service name/description for transports SHOULD match only for the same service
 - UDP service to discover a dynamic TCP port SHOULD use “-s” service name suffix
 - UDP multi-host services SHOULD use multicast rather than broadcast
 - UDP services SHOULD bandwidth-limit
 - UDP multipoint services SHOULD scale, and SHOULD NOT rely on multicast to scale
 - UDP services SHOULD include cong. detection and back-off
 - UDP services SHOULD NOT be used as a perf. enhancement over TCP
- Input/comments welcome!