

Service Criticality Form

K-Root

Introduction

This form is used to gather input from the community on the service criticality. The framework is detailed in <https://labs.ripe.net/author/razvano/service-criticality-framework/>. The service criticality has three components:

Confidentiality:

What is the highest possible impact of a data confidentiality-related incident (data leak)?

Integrity:

What is the highest possible impact of a data integrity-related incident (hacking)?

Availability:

What is the highest possible impact of a service availability-related incident (outage)? All our services are designed with at least 99% availability, so please consider outages of up to 22 hours.

Service Overview

Table 1: Service Overview

Service purpose	To provide access to the DNS root
Service owner(s)	GII / Paul de Weerd
Stakeholders	The global Internet community, IANA, RSO, RSSAC
Types of data that the service stores or processes	The DNS root zone and associated DNS zones
Critical parts of the service	The DNS root zone and associated DNS zones
Non-critical parts of the service	None

Impact Areas

Global Routing

	Low	Medium	High	Very High
Global Routing	No / negligible impact	Limited reachability issues	Widespread reachability issues	Widespread and persistent reachability issues

Incident Impact on Global Routing	Incident Severity
Confidentiality: (Impact level of incidents such as data leaks)	
The root zone is publicly available from various sources.	Low
Integrity: (Impact level of incidents such as hack attempts)	
The root zone is DNSSEC-protected.	Low
Availability: (Impact level of service outage incidents, up to 22 hours per quarter)	
There are 12 other root letters. K going down would have no impact.	Low

IP addresses and AS Numbers

	Low	Medium	High	Very High
IP addresses and AS Numbers	No / negligible impact	Local disruptions (registration information not being available for some entities)	Regional disruptions (registration information not being available for the RIPE NCC region)	Global disruptions (lack of registration information for all AS Numbers and IP addresses)

Incident Impact on IP Addresses and AS Numbers	Incident Severity
Confidentiality: (Impact level of incidents such as data leaks)	
The root zone is publicly available from various sources.	Low
Integrity: (Impact level of incidents such as hack attempts)	
The root zone is DNSSEC-protected.	Low
Availability: (Impact level of service outage incidents, up to 22 hours per quarter)	

There are 12 other root letters. K going down would have no impact.	Low
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Global DNS

Global DNS	Low	Medium	High	Very High
	No / negligible impact	Local DNS issues	Widespread DNS issues	Widespread and persistent DNS issues

Incident Impact on Global DNS	Incident Severity
<i>Confidentiality: (Impact level of incidents such as data leaks)</i>	
The root zone is publicly available from various sources.	Low
<i>Integrity: (Impact level of incidents such as hack attempts)</i>	
The root zone is DNSSEC-protected.	Low
<i>Availability: (Impact level of service outage incidents, up to 22 hours per quarter)</i>	
There are 12 other root letters. K going down would have no impact.	Low