

Service Criticality Form

AuthDNS

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 DNS services to the global internet community and the RIPE NCC
Service owner(s)	GII / Paul de Weerd
Stakeholders	Global Internet community, RIPE NCC
Types of data that the service stores or processes	DNS data
Critical parts of the service	rDNS delegations; forward DNS for ripe.net and rDNS for RIPE NCC's own IP space; secondary DNS for .int
Non-critical parts of the service	Secondary DNS service for several ccTLDs, forward DNS for some less important zones

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)	
Data is publicly available	Low
Integrity: (Impact level of incidents such as hack attempts)	
RPKI depends on DNS (ripe.net) correctness	High
Availability: (Impact level of service outage incidents, up to 22 hours per quarter)	
Data in the zones is hosted by other parties (other RIRs), so the impact would be negligible	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)	
No impact	Low
Integrity: (Impact level of incidents such as hack attempts)	
Various things depend on ripe.net (e.g. whois.ripe.net, www.ripe.net); people could be misdirected, which could have an impact	Very High
Availability: (Impact level of service outage incidents, up to 22 hours per quarter)	

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>	
Data is publicly available	Low
<i>Integrity: (Impact level of incidents such as hack attempts)</i>	
This is the global DNS	Very High
<i>Availability: (Impact level of service outage incidents, up to 22 hours per quarter)</i>	
Due to highly redundant setup of the global DNS, availability issues on our end would generally be handled by our secondary service providers (generally, the other RIRs)	Medium