

Kathmandu University

Internet [**Dhulikhel Premise**]

&

Website [**<https://ku.edu.np>**]

Service Outage Report

Website of School of Science, School of Engineering, School of Education and School of Law are serviced within the same Web Infrastructure Management System of KU Website

[09.07.2022]

Prepared by: ISMS

INTERNET DETAILS

S. No.	Particulars	Details
1	Service Provider	Worldlink Communications Limited
2	Service Since	October 2017 (Upgraded to 250Mbps in April 2022)
3	Bandwidth	250 Mbps Overseas Symmetric (International) 600 Mbps National Symmetric (Local)
4	Utilization Time	24 Hours
5	Service Locations	Central Campus Dhulikhel Premises, School of Law
6	Internet Users	Office Building, Staff/Faculty Residence, Student Hostels, Guests & Visitors

BANDWIDTH CONSUMPTION RATES

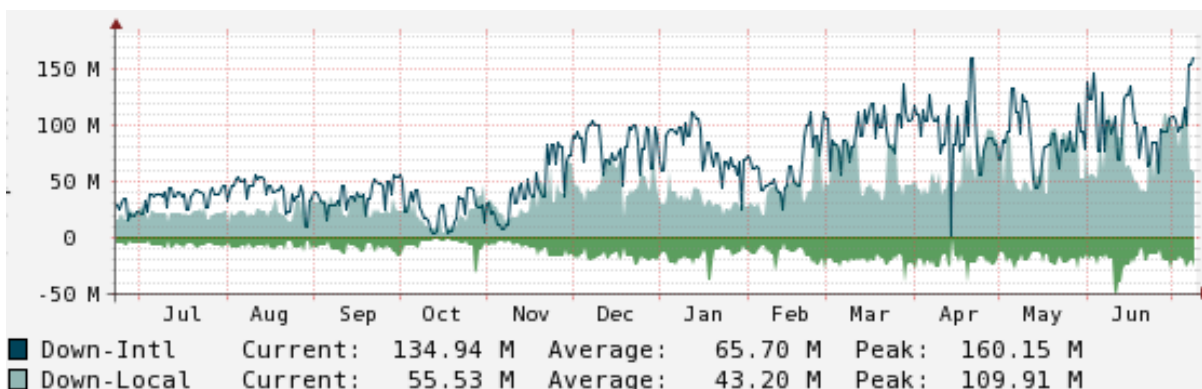


Fig: Annual Average Internet Bandwidth Consumption (1 day Avg) from 10.07.2021 to 09.07.2022

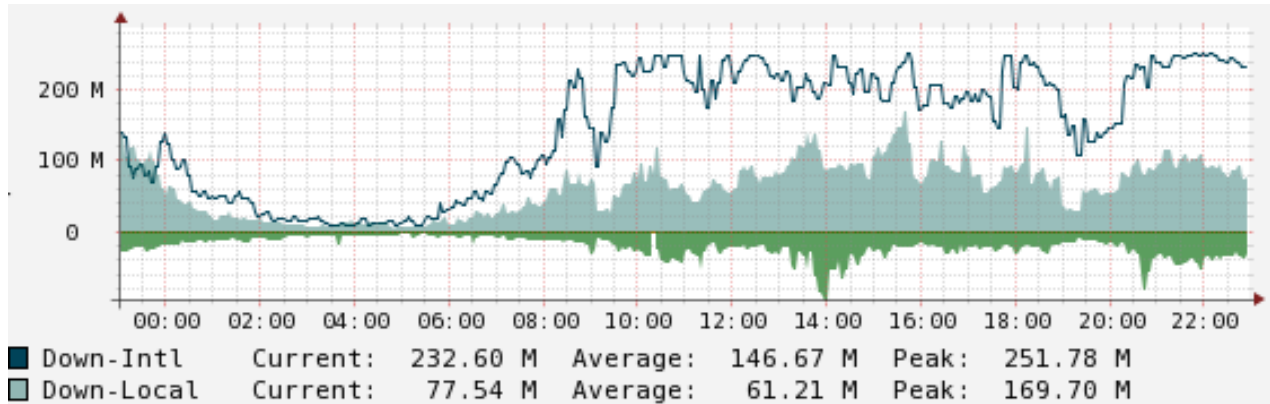


Fig: Daily/Current Average Internet Bandwidth Consumption (5 Min Avg) from 05.07.2022 23:00 to 06.07.2022 23:00

INTERNET SERVICE OUTAGES

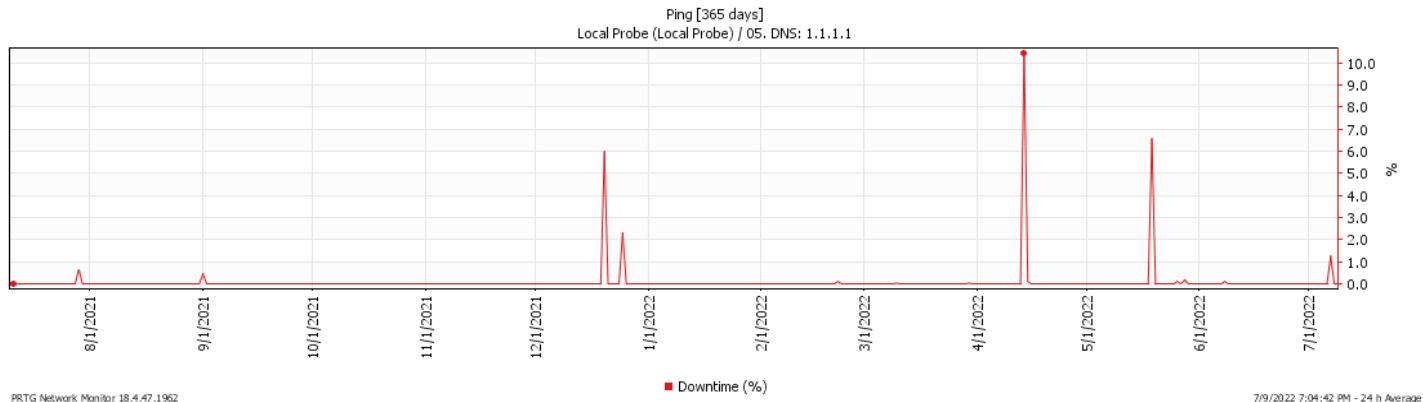


Fig: Internet Monitor Probe - Internet Outage Summary of 365 Days from 10.07.2021 to 09.07.2022

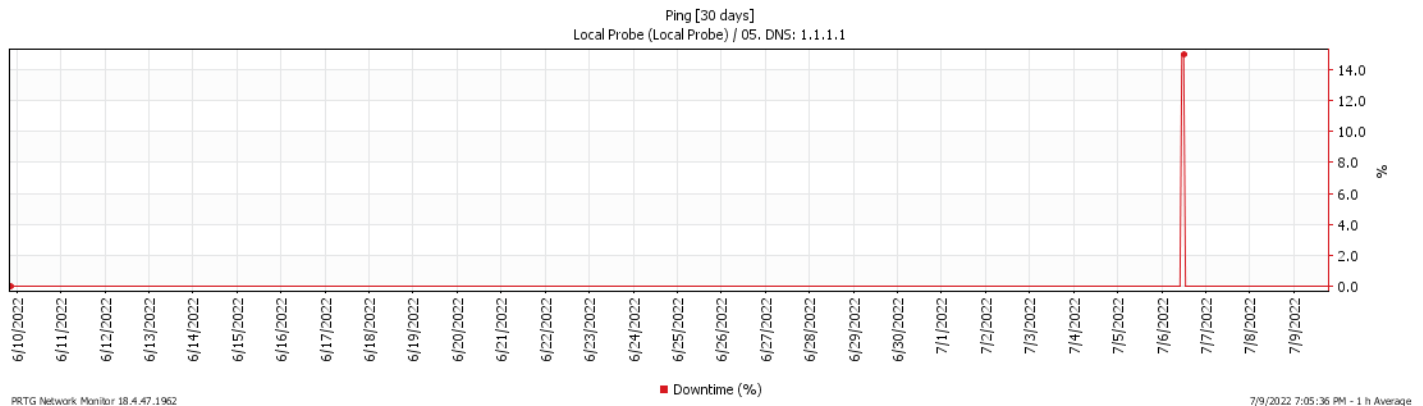


Fig: Internet Monitor Probe - Internet Outage Summary of 30 Days from 10.06.2022 to 09.07.2022

Internet Service Outage Log of last 1 Year from 10.07.2021 to 09.07.2022

SN	Date	Start Time	End Time	Duration	Remarks
1	06.07.2022	10:33	10:53	20 Minutes	Reason Unknown (ISP's internet as well as telephone services down, no contact)
2	18.05.2022	18:55	20:10	1 Hour 15 Minutes	Reason Unknown (ISP could not verify upon request)
3	13.04.2022	17:30	19:55	2 Hours 25 Minutes	ISP Acknowledged, Error caused while implementing bandwidth shaping rule by their team, problem identified and resolved after reported from our side; access to university websites was not affected
4	06.01.2021	15:04	15:10	6 Minutes	ISMS Server Room emergency power shutdown for maintenance of fire hazardous line connection to Air Conditioner
5	24.12.2021	13:40	14:13	33 Minutes	ISP Acknowledged, Nationwide Internet Issue
6	19.12.2021	15:13	16:39	1 Hours 26 Minutes	Packet Loss at ISP End in Outbound traffic; Inbound traffic/websites not affected; resolved by ISP
7	18.12.2021	4:21	12:25	8 Hours 4 Minutes	Library Block 03 Main Distribution Circuit Breaker Failure (UPS Battery backup drained); 100Amp Circuit Breaker Replaced
8	24.11.2021	1:54	9:08	7 Hours 14 Minutes	ISMS Server Room 15 KVA Inverter IP MCB Damaged since 22.11.2021 due to phase unbalance by previous incident (Replaced)
9	23.11.2021	7:11	9:33	2 Hours 44 Minutes	ISMS Office Main MCB Fuse Blown (Since 17:02 22.11.2021) due to loose wire connection/spark
10	31.08.2021	16:10	17:20	1 Hour 10 Minutes	Scheduled Power down for 15KVA Inverter Maintenance
11	28.07.2021	15:15	15:20	5 Minutes	Reason Unknown (ISP acknowledged physical link discontinuation)

WEBSITE DETAILS

S. No.	Particulars	Details
1	System Name	Web Infrastructure Management System (Designed and Managed by ISMS)
2	Service Since	June 2019
3	Total number of current websites	25
4	Total websites deployed	22
5	Enrolled Schools	6 (4 deployed)
6	Enrolled Departments	17 (17 deployed)
7	Other Units/Centers/sites	2 (including ku.edu.np)
8	Websites under development	3 out of 25

Note: Websites KU Homepage (ku.edu.np), KUSoE (soe.ku.edu.np), KUSoS (sos.ku.edu.np), KUSoL (sol.ku.edu.np), KUSoEd (soed.ku.edu.np) and all related departments including DoMIC

(mic.ku.edu.np) are all deployed under same Web CMS (web.ku.edu.np) and thus service outage report for this website should represent for all mentioned websites.

WEBSITE VISITOR RATES

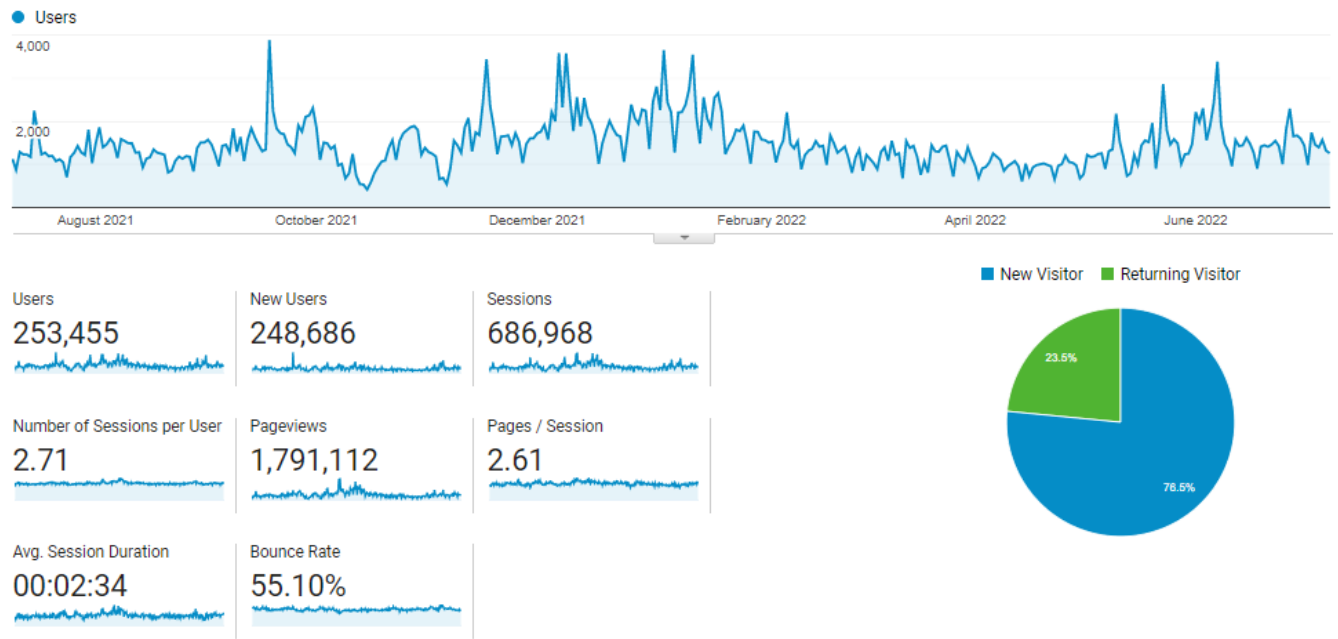


Fig: Annual Average KU Homepage Website visitors (1 day Avg) from 10.07.2021 to 09.07.2022 (Bounce rate=Percentage of single-page sessions/views in which there was no interaction/clicks)

WEBSITE SERVICE OUTAGES

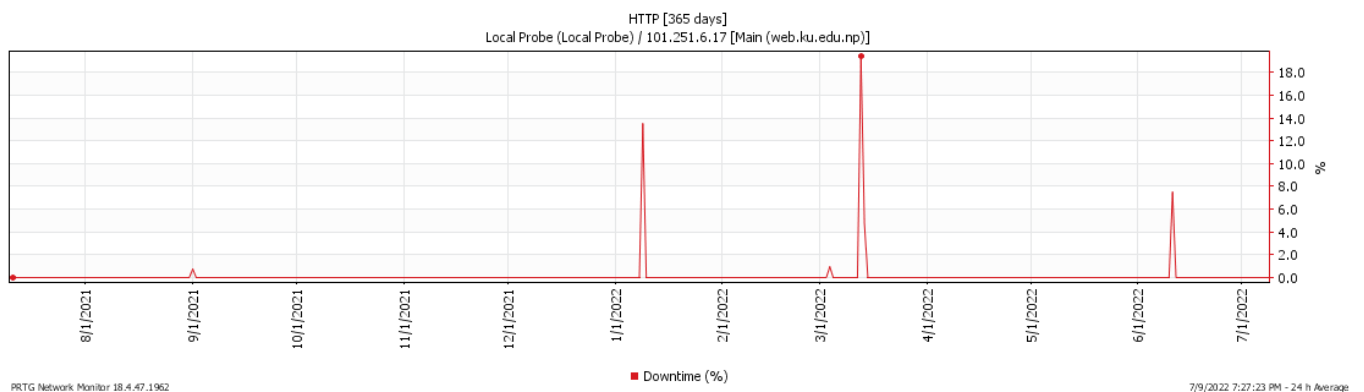


Fig: Website Monitor Probe - Website Outage Summary of 365 Days from 10.07.2021 to 09.07.2022

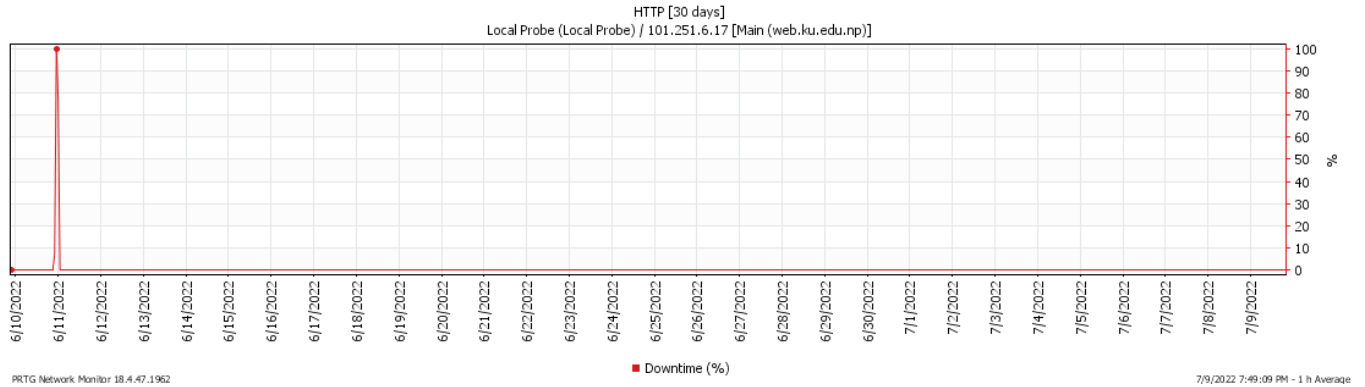


Fig: Website Monitor Probe - Website Outage Summary of 30 Days from 10.06.2022 to 09.07.2022

Website Service Outage Log of last 1 Year from 10.07.2021 to 09.07.2022

SN	Date	Start Time	End Time	Duration	Remarks
1	10.06.2022	21:43	23:35	1 Hour 52 Minutes	System Unresponsive; Websites not down but degraded performance; System soft-reset fixed issues
2	12.03.2022	19:15	8:52	13 Hours 37 Minutes	System Unresponsive; Websites not down but degraded performance; System hard-reset fixed issues
3	06.01.2021	15:04	15:10	6 Minutes	ISMS Server Room emergency power shutdown for maintenance of fire hazardous line connection to Air Conditioner
4	18.12.2021	4:21	12:25	8 Hours 4 Minutes	Library Block 03 Main Distribution Circuit Breaker Failure (UPS Battery backup drained); 100Amp Circuit Breaker Replaced
5	24.11.2021	1:54	9:08	7 Hours 14 Minutes	ISMS Server Room 15 KVA Inverter IP MCB Damaged since 22.11.2021 due to phase unbalance by previous incident (Replaced)
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CONCLUSION

The outage reports for Internet and Website Services presented here are based on the monitoring probes placed within the university premises and manual incident records logged. For internal users (office and residence inside KU Dhulikhel premises), the presented data are applicable as set forth. For the external users (viewers outside the campus), outage in internet connectivity also adds up to the outage in website services because although web servers are performing and reachable within campus, they are unreachable from the internet.

In the last 1 year, the Internet service has been down for a total of approximately **25 hours 22 minutes** and the website service has been down for a total of approximately **34 hours 47 minutes**. The internet outage is **0.397%** of total service time with agreed 97% uptime and all incidents besides internal issues are within the fault resolution of maximum 4 hours as per the service agreement with ISP. The website outage is **0.289%** of total service time.

A significant duration, approximately **19 hours 18 minutes**, of the outages in both Internet and Website Services were caused by power failures, faults in mains lines or other power related issues.

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