

# 2026 Japan Sakura Connectivity Report

Final Edition — Baseline vs Peak Season Analysis

*Connectivity Lab | Field Measurements by Conn-Scout Japan*

*Network Infrastructure: au (KDDI)*

*Last updated: March 29, 2026*

This report analyzes mobile network performance across key Tokyo cherry blossom locations, comparing pre-bloom baseline measurements with peak-season conditions. It highlights how crowd density impacts latency, throughput, and overall connectivity during the 2026 sakura season.

## 1. Executive Summary

Cherry blossom season can turn parks into temporary high-density network zones. During peak viewing windows, simultaneous photo/video sharing and livestream bursts shift the performance bottleneck from downlink speed to uplink capacity and responsiveness.

To evaluate real-world performance, Connectivity Lab first established a baseline by measuring network conditions before peak bloom, and then conducted additional field tests during the sakura season.

These measurements enable a direct comparison between baseline and peak conditions, allowing us to assess how network performance changes under real-world crowd congestion.

### Key Findings (Baseline)

- Baseline conditions showed low latency (19–34 ms) and stable throughput across all locations, with download speeds reaching up to 272 Mbps and upload speeds up to 73.5 Mbps
- Peak-season measurements revealed noticeable performance degradation in high-density environments, with download speeds dropping as low as 25.1 Mbps and latency increasing up to 1,646 ms
- Meguro River recorded the most significant throughput decline under congestion, with download speeds decreasing from 272 Mbps (baseline) to significantly lower levels during peak conditions
- Shinjuku Gyoen experienced severe uplink degradation, with upload speeds dropping to 1.1 Mbps and latency rising to 1,646 ms during peak measurements
- Network performance is strongly influenced by crowd density and physical layout, as evidenced by performance variation across locations despite identical carrier infrastructure

### What This Baseline Represents

- A reference dataset collected before peak bloom crowd density.
- A foundation for Baseline vs Peak comparisons

## 2. Study Design and Measurement Framework

### Network & Test Profile Specification

All measurements were conducted using a native local travel eSIM profile on the au mobile network (KDDI infrastructure). Devices connected to 5G where available with automatic LTE fallback depending on local radio conditions. This configuration reflects typical traveler usage with local network access rather than international roaming routing.

### Recorded Metrics

- Download throughput (Mbps)
- Upload throughput (Mbps)
- Idle latency (ms)
- Download responsiveness (ms)
- Upload responsiveness (ms)




### Notes on Interpretation

During seasonal tourism surges, uplink demand typically increases due to high-volume photo uploads, short-form video posting, and livestream initiation. For this reason, this report treats upload throughput and responsiveness as primary indicators for crowd resilience, alongside latency stability.



### 3. Tokyo Field Measurements: Baseline vs Peak

The tables below present a direct comparison between baseline and peak-season measurements across key sakura locations.

#### [Baseline Measurements Table]

Location	Time stamp (Local)	Network Status	Download (Mbps)	Upload (Mbps)	Idle Latency (ms)	DL Responsiveness (ms)	UL Responsiveness (ms)
Meguro River	Feb 27, 2026 — 17:17	 Seamless	272	69.2	19	592	179
Shinjuku Gyoen	Feb 28, 2026 — 18:46	 Stable	79.5	12.4	34	513	33
Ueno Park	Mar 4, 2026 — 18:36	 Stable	68.6	73.5	23	389	88

#### [Peak Measurements Table]

Location	Time stamp (Local)	Network Status	Download (Mbps)	Upload (Mbps)	Idle Latency (ms)	DL Responsiveness (ms)	UL Responsiveness (ms)
Meguro River	Mar 22, 2026 — 18:45	 Limited	38.5	7.0	55.0	497	838
Shinjuku Gyoen	Mar 24, 2026 — 15:11	 Limited	25.1	1.1	50	1646	533
Ueno Park	Not measured during peak season						

#### Key Observations:

- Download speed dropped by up to 85% at Meguro River
- Upload performance degraded significantly under crowd density
- Latency increased substantially, especially in Shinjuku Gyoen

## Meguro River

### Baseline

A dense urban riverside corridor with high photo-taking activity, especially during evening illumination periods.

#### Field notes:

- Highest observed download throughput in baseline set (272 Mbps).
- Low idle latency (19 ms) suggests strong proximity to urban infrastructure.
- Upload throughput remained strong (69.2 Mbps), supporting media sharing workflows.
- Upload responsiveness (179 ms) indicates moderate uplink reaction time during sustained activity.

### Peak Season

During peak sakura conditions, the Meguro River showed the most significant performance degradation among all tested locations.

#### Field notes:

- Download throughput dropped from 272 Mbps to 38.5 Mbps (↓ ~86%)
- Upload throughput declined from 69.2 Mbps to 7.0 Mbps (↓ ~90%)
- Idle latency increased from 19 ms to 55 ms
- Upload responsiveness surged from 179 ms to 838 ms

This sharp degradation is primarily attributed to extreme pedestrian congestion along narrow walking paths, where user density is highly concentrated within a limited physical corridor. The combination of high uplink demand (photo uploads, video sharing) and constrained radio resource allocation results in significant performance bottlenecks, particularly affecting upload stability and responsiveness.

## Shinjuku Gyoen

### Baseline

A wide open garden environment with large lawns and walking paths—often a primary sakura destination for visitors.

#### Field notes:

- Stable downlink (79.5 Mbps) with moderate idle latency (34 ms)
- Lower upload throughput (12.4 Mbps) relative to other sites in this baseline set
- Upload responsiveness (33 ms), indicating efficient routing and low latency

## Peakseason

Despite its open spatial layout, Shinjuku Gyoen experienced substantial performance degradation during peak sakura conditions.

### Field notes:

- Download throughput decreased from 79.5 Mbps to 25.1 Mbps (↓ ~68%)
- Upload throughput dropped sharply from 12.4 Mbps to 1.1 Mbps (↓ ~91%)
- Idle latency increased from 34 ms to 50 ms
- Download responsiveness spiked from 513 ms to 1,646 ms
- Upload responsiveness increased from 33 ms to 533 ms

These results indicate that even in open environments, high user density can significantly impact network performance. The extreme drop in upload throughput and spike in responsiveness suggest congestion at the network scheduling level, where simultaneous uplink demand exceeds available capacity. This highlights that spatial openness alone does not guarantee stable connectivity under peak conditions.

## Ueno Park

### Baseline

A major urban park and tourism cluster that typically experiences intense crowd density during the sakura peak season.

### Field notes:

- Upload throughput exceeded download (73.5 Mbps vs 68.6 Mbps), favorable for social uploads and live sharing.
- Idle latency remained low (23 ms), indicating strong responsiveness under moderate load.
- Upload responsiveness (88 ms) suggests solid uplink reactivity for bursty media posting behavior.

### Peak Season Observation

Peak-season measurement was not available for Ueno Park in this dataset. However, based on its structural characteristics and baseline performance profile, Ueno Park is expected to experience localized congestion during peak bloom, particularly in high-density clusters near main walkways and viewing zones. Future measurements are required to quantify the extent of performance degradation under peak conditions.

## 4. Integrated Comparison Analysis

### Latency Profile

Baseline measurements showed idle latency ranging from 19–34 ms, indicating stable and responsive local routing under pre-bloom conditions. During peak sakura season, latency increased across measured locations, with idle latency rising to 50–55 ms and responsiveness spiking up to 1,646 ms in high-density environments.

This comparison highlights **how crowd congestion directly impacts network responsiveness, particularly at the scheduling and routing levels.**

### Uplink Readiness for Social Sharing

While download throughput remained relatively usable even during peak conditions, user experience was significantly constrained by uplink degradation. At baseline, Meguro River and Ueno Park demonstrated strong uplink capacity (69.2 Mbps and 73.5 Mbps), supporting photo uploads, short-form video posting, and livestream initiation.

However, during peak conditions:

- Meguro River upload dropped from 69.2 Mbps → 7.0 Mbps (↓ ~90%)
- Shinjuku Gyoen dropped from 12.4 Mbps → 1.1 Mbps (↓ ~91%)

This indicates that uplink performance becomes the primary bottleneck in high-density environments, driven by simultaneous user-generated content activity.

**As a result, actions such as uploading media or starting live streams may experience significant delays during peak sakura hours.**

## 5. Final Verdict

Based on baseline measurements across all locations and peak-season observations from selected sites, network connectivity during the sakura season remains generally sufficient for essential travel activities. However, performance varies significantly depending on crowd density and environmental structure.

- Narrow and highly congested areas experience the greatest throughput degradation
- Open park environments can still be impacted under peak density
- Upload performance and latency are more sensitive to congestion than download speed

For travelers, messaging, navigation, and ticket access remain functional, but uploading photos or videos may be slower in crowded areas. **Users are advised to download maps, tickets, and essential content in advance before entering high-density sakura viewing zones.**

## 6. Network Performance Insight: Routing and Latency in High-Density Environments

The observed performance patterns suggest that network behavior during the sakura season is primarily influenced by user density and how network resources are allocated under congestion.

In high-density environments, increased competition for network resources reduces throughput and responsiveness. Under these conditions, the efficiency of routing paths becomes a critical factor in overall performance.

### How Routing Affects Latency: Local vs. Roaming Networks

Latency can be expressed as:

$$L_{total} = L_{device} + L_{local\_network} + L_{routing} + L_{server}$$

Among these, routing latency plays a critical role in real-world responsiveness.

Roaming-based eSIM solutions often route traffic through international nodes, increasing latency due to longer routing paths and additional processing layers. In contrast, native local eSIMs—such as those operating on au (KDDI)—connect directly to domestic infrastructure, minimizing routing overhead and achieving significantly lower latency.

In high-density environments such as peak sakura viewing areas, this difference becomes even more pronounced. Lower latency enables faster session establishment and more efficient resource utilization. **For this reason, choosing an eSIM that operates on a native local network becomes a key factor in maintaining stable connectivity during peak travel periods.**

## Document Info

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