SERVICE OVERVIEW WHITE PAPER

SDK Ntrip

Base-station correction data, made easy to distribute and manage

How distribution works and how to reduce operating effort



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nearby station selection, alerts and usage summaries

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CHALLENGES

Stream setup, daily checks and records take work

Before launch | Prepare streams

Check device formats and connection settings; prepare the needed streams.



After launch | Check status and records

Status checks

Check correction data and station status.

Issue awareness

Assess the situation when a fault occurs.

Usage reporting

Organize connection records for reports.

Distribution needs a clear view of daily operations, too.

From base station to receiving device

NTRIP delivers correction data over the internet.



Base station

At a known location, it sends data that helps measure position.

SDK Ntrip

Receives correction data and streams it to devices.

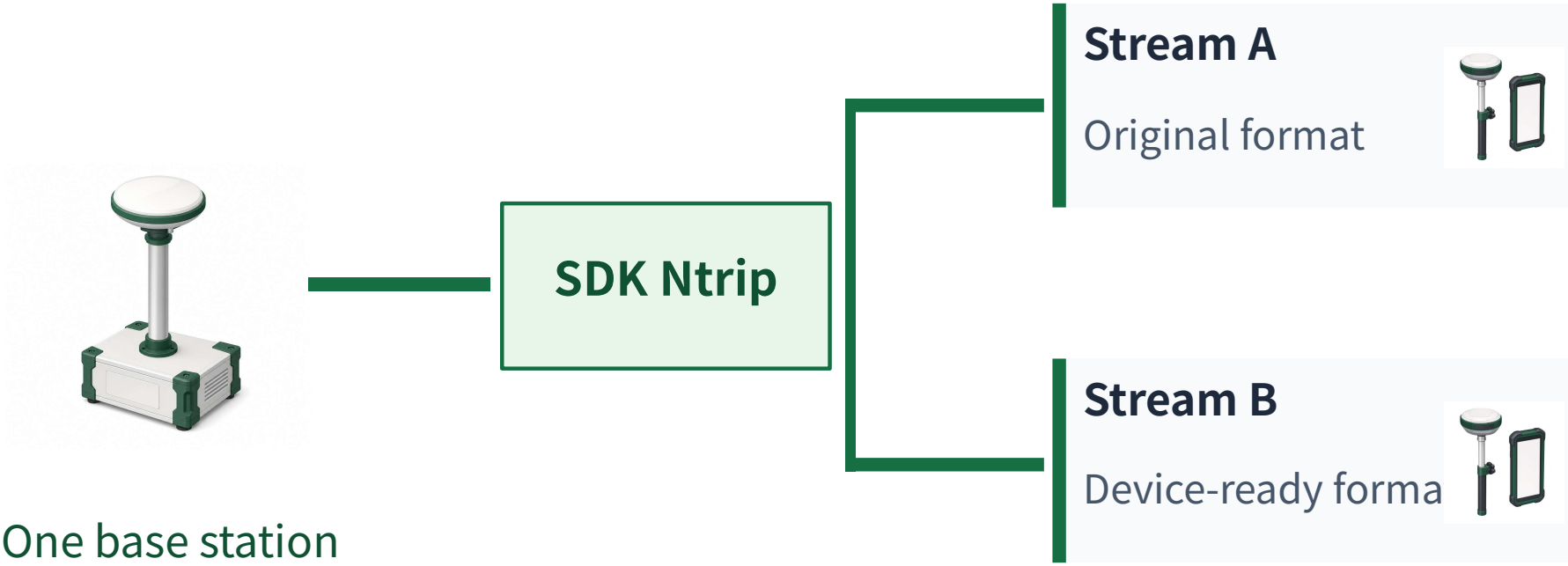
Receiving device

Uses correction data for its own positioning (NtripClient).

Schematic: the receiving device measures its own position.

One base station can feed multiple streams

Reuse one station input; set format and access for each stream.



A receiving stream is called a mountpoint.
More streams do not require more station equipment or source connections.

Schematic; streams are examples. Base stations are still needed to cover each area.

KEY FEATURES

Choose connection requirements per stream

Use open streams or streams with connection requirements.

Setting	Connection requirement
Fully public	No authentication
Password	Connect with the stream password
Account + password	Use an account name and the stream password
Owner only	Use the owner's account name and stream password

Connection rules and visibility on the public map are not the same.

KEY FEATURES

Adapt formats and protect each connection

Format options

For some devices, add a converted stream while keeping the original.



Connection encryption

Compatible devices and software can encrypt each link separately.

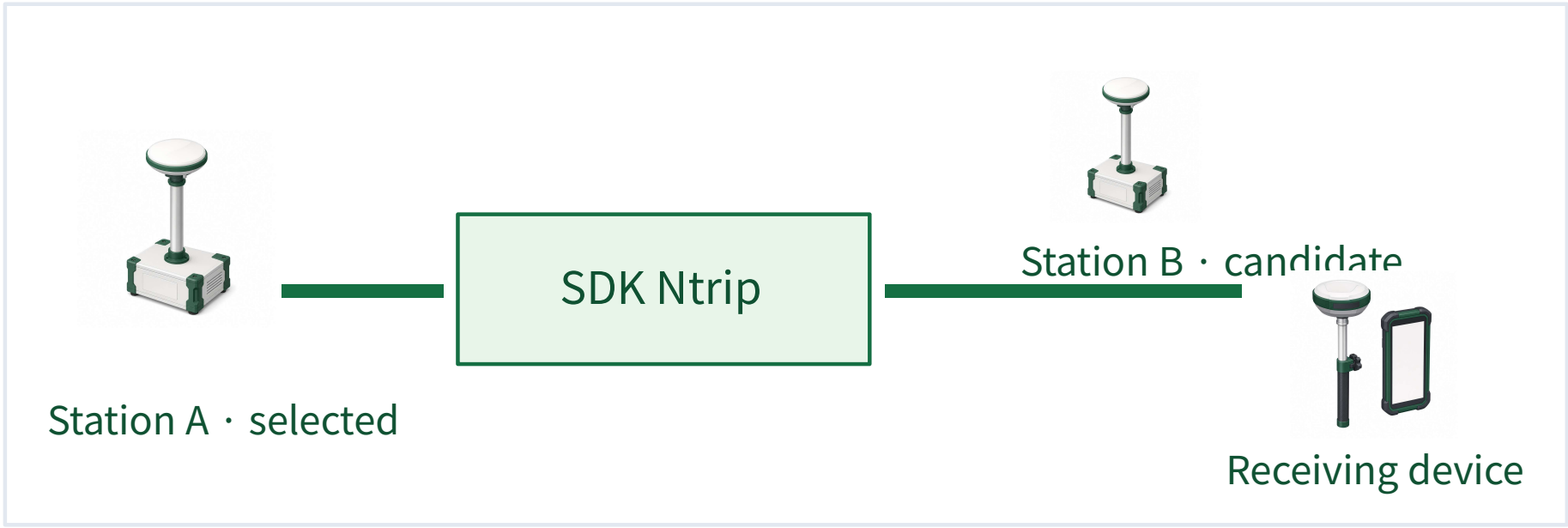
- Base station → service
- Configure each link
- Service → device

Use the original format unless a device needs a change.
Both ends need compatible settings; unencrypted NTRIP also remains available.

KEY FEATURES

Automatically select a nearby eligible station

From device location, select the nearest running station with a known position and an eligible representative stream.



Select at connection | Review after 10 min | Another 10 min later

Keep sending location. For fast movement, consider reconnecting; to stay with one station, connect directly to its stream.

Schematic only; not actual station locations or guaranteed range.

KEY FEATURES

Check station status and get email alerts

View station location, status and usage in a browser.



Check status remotely

Confirm the station is running and correction data is arriving.

Email notifications

Alerts cover disconnection, missing or faulty data, first streaming, recovery, and station or stream deletion.

Register an alert email address. Email helps assess the situation; it does not repair equipment automatically.

KEY FEATURES

Review connections by period and user

Filter usage by time period and user.

Metric	What it shows
Connections	Number of connections
Connection duration	How long devices stayed connected
Data sent	Amount of correction data sent

Filter by period/user → Export CSV → Reports

CSV files can be used in spreadsheet software.

Usage not tied to a registered account is logged per connection.

Connection duration is not necessarily working time.

OPERATIONAL BENEFITS

Reduce repeated stream setup

Share one base-station input across streams with different settings.

Example: separate source settings



- Configure each source stream
- Set up streams separately

SDK Ntrip: shared input



SDK Ntrip

Set options per stream

Avoid splitting data and configuring each stream at the source.

Avoid repeating station details and source settings when adding streams.
These are expected benefits; results depend on your setup and devices.

OPERATIONAL BENEFITS

Make daily checks and reporting easier

These are expected operational benefits based on the features.

Task	Feature used	Work that may be reduced
Status checks	View station status in a browser	Fewer visits just to check status and less manual checking
Issue awareness	Email alerts for outages and missing data	Notice issues sooner and assess conditions before responding
Usage reporting	Summaries by period or user; CSV export	Less manual tallying and report re-entry

Expected benefits only. On-site response and equipment maintenance remain part of operations.

From registration to receiving correction data

For the provider

1. Create an account
2. Register station and streams
3. Stream correction data
4. Check status and alert contacts

For the receiving user

1. Choose a stream
2. Set up device connection
3. Connect a compatible device
4. Check data reception

Auto selection requires the device to keep sending location data.

Web admin login and device connection details are separate.

Oversee daily operations in a browser

Review status and usage after launch; revise settings as needed.



Routine checks

Check station status, stream settings and usage.

When issues arise

Read alerts, then check the station and connection.

Review settings

Update streams, access options and alert recipients.

If equipment moves, check station coordinates on both receiver and service.

Proposed support



PROPOSED

Setup and connection guidance

Guidance on registration and settings to send and receive correction data.

Operations questions by email

Proposed email guidance on use and interpreting alerts.

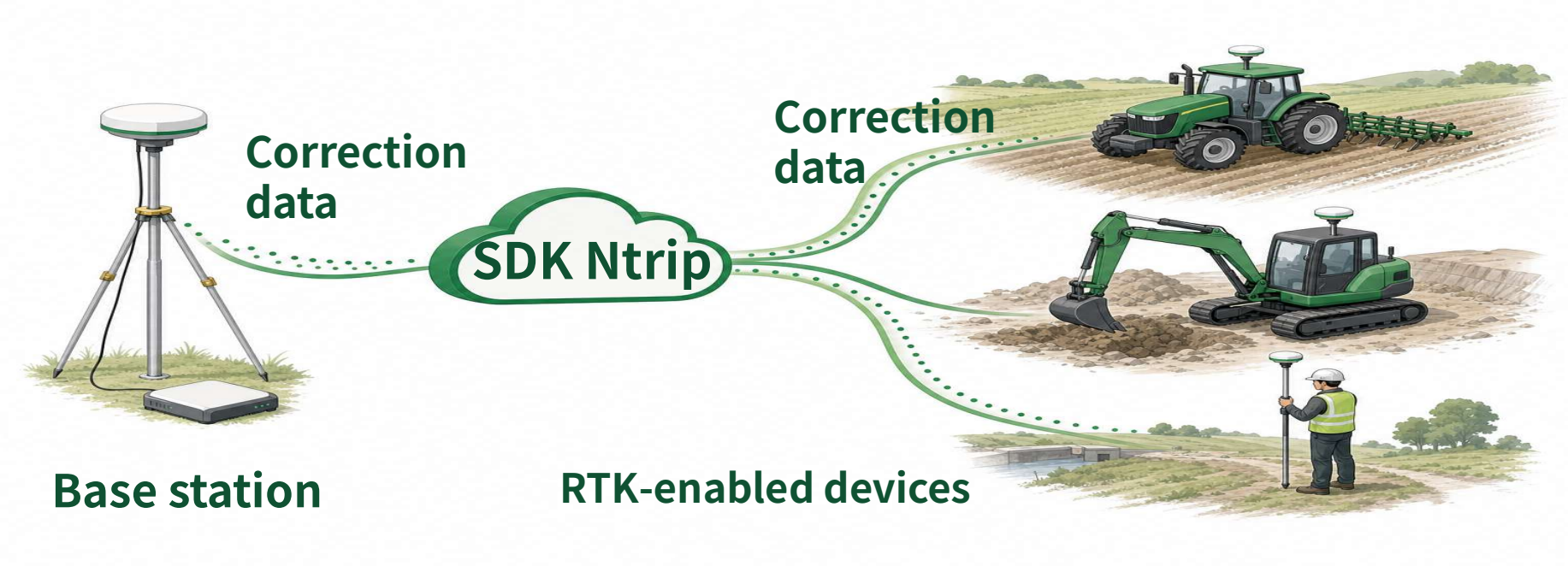
This support is a proposal, not a confirmed offering.
Confirm the final scope and terms separately.

What to check before using SDK Ntrip

Devices	Confirm NTRIP send/receive support and compatible data formats.
Internet	Station and receiving device both need internet access.
Encryption	If used, check support and settings on both sender and receiver.
Auto-select	Keep sending device location. If a connection ends, the device must reconnect.
Accuracy	Position accuracy varies with devices, surroundings, connectivity, station distance and satellite geometry.

SDK Ntrip distributes correction data.
It does not guarantee a particular positioning accuracy.

Prepare SDK Ntrip for your equipment



RTK uses base-station corrections to measure position more accurately.

Concept illustration of RTK use

1 List your base station, devices and software

2 Check streams, access settings and alert contacts

3 See site details and how to get started

SDK Ntrip website https://sdk-ntrip.com/