Migrating To GreenArrow CloudMTA From Another Sending Service

What is GreenArrow CloudMTA?

GreenArrow CloudMTA is a **cloud-based mail transfer agent (MTA)** designed for email service providers and high-volume senders. It provides the power and flexibility of owning your email sending pipeline **without the need for managing the sending infrastructure**. More than just an email sending API, GreenArrow CloudMTA is a fully featured email sending platform that provides Deliverability and MailOps teams **programmatic interfaces for configuring sending domains, DKIM keys, branded DNS entries, and IP routes**.

GreenArrow CloudMTA additionally provides deliverability teams the ability to **tune IP throttling rules, adjust traffic shaping automations, and override delivery behavior**, as well as providing **superior reporting** on delivery details.

GreenArrow CloudMTA gives our cloud customers access to the same bulletproof MTA software that we've been actively developing for our on-prem licensed customers for nearly 20 years, administered by our team of veteran deliverability and infrastructure experts. And if you ever decide to bring the MTA in-house in the future, you can do it with the exact same software and interfaces that you've been using with GreenArrow CloudMTA.

What is required to migrate to GreenArrow CloudMTA from another email sending service?

The details of any particular migration will be customer-specific, but in general, there are a few steps you'll need to follow:

1. Create integrations with GreenArrow CloudMTA
2. Configure DNS for GreenArrow CloudMTA
3. Begin warming traffic on GreenArrow CloudMTA
4. Complete cutover

Depending on your current DNS configuration, it may be possible and advisable to work on steps 1 and 2 in parallel. That is, if you need to get your customers to update their DNS records to point to a DNS zone that you own rather than one owned by your existing email sending service (more details below), you can be working on that in parallel with developing some of the CloudMTA integrations.

Similarly, steps 2 and 3 can overlap: you can begin warming traffic for customers who have completed their DNS changes (and/or onboard new customers) while you wait for others to catch up.

Create integrations with GreenArrow CloudMTA

While GreenArrow CloudMTA can be manually configured through its web UI, in practice most large-scale senders will want to interface with it via APIs. All of our APIs are detailed in the GreenArrow documentation; here are a few of the most common integration points:

- Message submission API - The message submission API is the HTTP interface you'll use to send mail through GreenArrow. It supports both compression and batching. Alternatively, you may inject messages through authenticated SMTP (port 587).

- Sending Domains API - This is the Create/Read/Update/Delete (CRUD) API that you'll use to manage your CloudMTA sending domains (i.e., the domains from which your customer brands send email). Creating or updating a sending domain also triggers creation of the required DNS records, including DKIM keys. The created records are returned as part of the API response.

- Check DNS API - Related to the sending domains API above, the Check DNS API polls the DNS verification status of a newly-created sending domain, so you can tell if it is ready for sending. It can also be used to trigger a re-verification.

- Shared tracking domains API - This CRUD interface allows configuration of multiple Sending Domains to share a single set of tracking infrastructure (click/open tracking links and bounce handling) rather than each having their own per-domain tracking subdomain.

- Routes API - This CRUD interface manages CloudMTA Routes. Routes provide a way to manage groups of IP addresses and their associated routing rules for email delivery (e.g., separate routes for marketing vs. transactional messages, or routes dedicated to specific brands). When a Route is created, it automatically provisions IP addresses from GreenArrow Cloud based on anticipated sending volume and creates a Routing Rule that directs mail through those IPs.

- Receiving domains API - This CRUD interface manages domains for which you receive (rather than send) mail. Receiving Domains configure inbound MX-based email receiving for a domain. When a Receiving Domain's DNS is verified, GreenArrow automatically provisions an Incoming Email Domain so that mailboxes under that domain can receive email.

- Event processing - You'll most likely want to receive your GreenArrow events (delivery attempts, bounces, click/open events, spam complaints, unsubscribes, and inbound emails) via HTTP webhooks, as JSON objects or as encoded forms with `Content-Type application/x-www-form-urlencoded`. GreenArrow can deliver multiple events in batches if the JSON format is selected, and the batch size can be changed.

You'll need to implement most (or perhaps all) of the integration points above in your existing sending and configuration management applications in order to take full advantage of the features of GreenArrow CloudMTA.

Configure DNS for GreenArrow CloudMTA

Email requires DNS, and each sending domain you or your customers want to use on the CloudMTA platform requires the creation of a number of DNS records. CloudMTA will automatically create the following records for you:

- A DNS "A" record for the URL Domain, so clicks and opens can be routed to your CloudMTA server
- DNS "MX" and "TXT" records for the Incoming Email Domain (which will also serve as the bounce handling domain for your outbound mail)
- DKIM public key records for the sending domain

The GreenArrow CloudMTA Sending Domains API will generate and publish the required DNS records for sending mail, and the API will return the required CNAME records for you to publish in your DNS. (The Receiving Domains API will do likewise for incoming email domains.) CloudMTA will also check for the presence of any conflicting DNS records and verify that you've put the correct CNAMEs in place before enabling sending.

If you're migrating from an existing email sending service, you may have already instructed your customers to create DNS records that point to that sending service's DNS records – making it more difficult to migrate those customers to a new sending service vendor. To avoid this type of vendor lock-in, GreenArrow CloudMTA instead creates DNS records that point to DNS entries that **you** control, and you would in turn instruct your customers to point their DNS to those entries. This ensures that your customer's DNS relationship is with **you** as the ESP, not with GreenArrow or another third-party sending service. The CloudMTA DNS records would exist side-by-side with the records for the existing sending service while you perform your traffic migration. Upon completion, the old DNS records can be removed, and you should never need to ask your customers for a DNS update again, even if you leave GreenArrow CloudMTA.

If you're planning a service migration to GreenArrow (or any other vendor) in the future, much complexity can be avoided by following the practices recommended in our whitepaper Avoiding Vendor Lock-in As An ESP Using An Email API Service. The methods described in that whitepaper give you the ability to make changes to the backend sending service without requiring further DNS updates from your customers. Even if a migration is far off on your time horizon, following best practices today to avoid vendor lock-in will make future migrations far easier for you and your customers.

Begin warming traffic on GreenArrow CloudMTA

Once you've created all of the required integrations, set up sending infrastructure through the GreenArrow APIs, and have updated DNS for at least some of your customers, you can begin warming traffic for those customers onto CloudMTA. If your sending platform already supports multiple sending services and you want to migrate **existing** customers, this generally means assigning some portion of a customer's traffic to CloudMTA instead of the existing vendor by way of a traffic splitter in your sending application.

Our IP warming system will automatically allocate IP addresses based on observed volume, and will bias traffic toward pre-warmed IP addresses while gradually shifting traffic onto new IPs based on delivery metrics. You may either Bring Your Own IPs (BYOIP) or use GreenArrow-supplied IP addresses.

Alternatively, you may choose to start by onboarding **new** customers to 100% GreenArrow CloudMTA while leaving existing customers on the legacy sending service. While this approach still requires that you support multiple backend vendors, it doesn't require the sort of traffic splitting described above - a single customer can be assigned to a single vendor.

This can give you time to develop a way to split traffic for existing customers while still ramping up sending for new customers. This also gives you time to get existing customers to update their DNS per Avoiding Vendor Lock-in As An ESP Using An Email API Service.

Depending on your sending volume and current sending services(s), GreenArrow may be able to develop a custom traffic splitting solution for you. Generally, this would mean routing all email traffic through a splitter hosted in GreenArrow CloudMTA, which will then transparently route some portion of traffic to your existing sending services(s) based on agreed-upon traffic splitting criteria. If a GreenArrow-hosted traffic splitter would be of interest to you, contact us for details.

Once you have sufficient IP capacity warmed, you **could** opt to do a hard cutover of an existing customer from the legacy platform to CloudMTA, but this is generally inadvisable. Even if the IP addresses are warmed, the backend sending domain and DKIM key are not, and a hard cutover is likely to introduce deliverability problems. Incorporating some sort of gradual traffic splitting will almost always produce better results.

You may be able to speed up your migration for a customer by starting with higher-quality / higher-engagement traffic - for example, starting with transactional messages and/or high-engagement audiences, and then moving on to lower-engagement traffic. If you can build engagement-awareness into your traffic splitting logic, so much the better. Our team of deliverability experts can help determine your sending capacity needs and help you formulate a plan to optimally migrate your traffic to our platform. We'll monitor signals on your sending traffic and make automated adjustments to the IP routes while informing you of any customer-caused problems that require intervention on your part.

See our case study of Vero's migration to GreenArrow for a real-life case study illustrating a real-life migration with a traffic splitter.

Complete cutover

Once you're onboarding new customers to CloudMTA and have a method for migrating existing customers, the time it takes to complete the cutover will depend mostly on two things:

1. How quickly you are able to get your customers to make the required DNS changes
2. How aggressively you are willing (or able) to warm the new sending infrastructure

Even for the most conservative of migrations at very high volume, warming the sending infrastructure for a customer is likely to take a few weeks at most. It rarely becomes the limiting factor for a migration path. In most cases, customer DNS updates are the part that slows down a migration. Our whitepaper on Avoiding Vendor Lock-In can help with that - preferably early in the process, before you even start the migration itself.

How do I get started with GreenArrow CloudMTA?

Contact us! The GreenArrow team loves building partnerships with our customers. We'd be happy to talk through your requirements and **set you up with a demo**, and our technical team can consult with you to plan and execute your implementation or migration. We've assisted large and small senders migrating to GreenArrow from the industry's other major platforms, and we care deeply about the success of our customers.

Our experience and care show up in everything we do, and that is why we aren't afraid to leave the exits unblocked by avoiding DNS-based vendor lock-in. Our customers stay with us because we are a true partner in their success.

With an average of 16 years of industry experience in our technical staff, you can trust that we will get you launched successfully, whether starting from scratch or migrating an existing operation.