



Streamline BIG-IP Migrations and Upgrades with F5 Journeys Migration Utility



KEY BENEFITS

Accelerate BIG-IP migrations

Journeys modifies BIG-IP application configurations to be compatible with newer BIG-IP instances and software, allowing migrations to be performed significantly faster.

Identify and remediate issues—automatically

Journeys quickly identifies migration conflicts while resolving issues wherever possible and provides remediation guidance where automatic fixes aren't feasible.

Obtain post-migration diagnostics

Journeys performs basic BIG-IP device health checks and provides status updates to verify migrations have been successful.

Move at your own pace

Migrate individual apps gradually or move your entire BIG-IP configuration at once; the choice is yours.

Transition to declarative configurations

Convert desired apps from existing UCS configurations to F5's declarative configuration format (AS3) to simplify management and automation of BIG-IP configurations.

Migrate from most devices and versions

Migrate from any BIG-IP device running BIG-IP TMOS v11.5 and later to newer versions and instances including rSeries, VELOS, and BIG-IP Virtual Edition.

Use Journeys for free

Get Journeys for free on F5 DevCentral's GitHub repository.

The Challenge: Technology Evolution and Complex, Expanding Application Portfolios

Over the course of F5's 25+ year existence there have been countless technological advancements within the BIG-IP product family, with new platforms and software constantly being released to deliver cutting-edge application security and delivery capabilities. While often keen to transition to next generation offerings to take advantage of these progressions, BIG-IP customers have historically been partially restricted in their ability to do so by one primary obstacle: the migration itself.

This is undoubtedly not a challenge unique to F5; however, the sheer quantity of apps supported by individual BIG-IP instances and the necessary complexity of many mission-critical workload configurations can make the process of migrating apps to newer platforms and software both arduous and time-consuming. Recently, the difficulty of this task for many operations teams has been compounded by accelerating digital transformation initiatives causing application portfolios and BIG-IP fleets to grow in magnitude. Fortunately, the solution can be found via task-level automation in the form of the F5 Journeys Migration Utility.

The Solution: F5 Journeys Migration Utility

The F5 Journeys Migration Utility is a complimentary tool designed to assist BIG-IP customers with migrating applications and their configurations from one BIG-IP TMOS instance to another. Journeys helps partially automate this process by modifying and upgrading BIG-IP TMOS configurations from an existing device to be compatible with the software running on a target instance, which significantly reduces the time and manual effort required to migrate workloads. In fact, migrating workloads using the Journeys Migration Utility is often over 10X faster than doing so manually.

F5 Journeys is a deployable application that runs within a virtual machine or container environment and can be used to perform migrations from any BIG-IP device running BIG-IP TMOS v11.5 and later to newer devices and BIG-IP TMOS versions. Users obtain configuration files (UCS—User Configuration Set) for their app configurations on existing BIG-IPs and provide this as an input to the tool, which then modifies the configuration to be compatible with the target device and BIG-IP TMOS version. The modified configuration can then be used to automatically deploy apps to the new target device directly from the Journeys Migration Utility or downloaded for manual deployment later.

Throughout the conversion process, Journeys automatically identifies potential migration conflicts (such as features not supported on new versions) and resolves these within the outputted configuration where possible, while also providing post-migration diagnostics including device health checks that verify migration success. In cases where compatibility issues cannot be resolved by the tool, Journeys provides remediation guidance.

THE SHEER QUANTITY OF APPS SUPPORTED BY INDIVIDUAL BIG-IP INSTANCES AND THE NECESSARY COMPLEXITY OF MANY MISSION-CRITICAL WORKLOAD CONFIGURATIONS CAN MAKE THE PROCESS OF MIGRATING APPS TO NEWER PLATFORMS AND SOFTWARE BOTH ARDUOUS AND TIME-CONSUMING.

Journeys can be used to perform migrations at a user’s own pace, either on a per-app basis—where the desire is to move apps individually—or on an entire BIG-IP configuration basis, where all workloads can be migrated simultaneously. When existing configurations are in the form of UCS files, Journeys can also be used to convert them into F5’s modern, declarative configuration format—Application Services 3 (AS3)—which enables faster, automated configuration changes going forward.

Example migration scenarios for the F5 Journeys Migration Utility could include:

- Migrating applications from F5 BIG-IP iSeries running BIG-IP TMOS v13.1 to F5 rSeries running BIG-IP TMOS v15.1.
- Migrating applications from F5 VIPRION running BIG-IP TMOS v12.1 to F5 VELOS running BIG-IP TMOS v15.1.
- Migrating applications from BIG-IP iSeries running BIG-IP TMOS v11.5 to BIG-IP Virtual Edition running BIG-IP TMOS v17.1.
- Migrating a single mission-critical application from BIG-IP iSeries running BIG-IP TMOS v14.1 to VELOS running BIG-IP TMOS v15.

In each of these migration scenarios the F5 Journeys Migration Utility is able to automatically detect any software compatibility issues that may impact the migration and implement the necessary configuration modifications—greatly simplifying and accelerating the process when compared to manual migrations.

HOW DOES THE JOURNEYS MIGRATION UTILITY WORK?

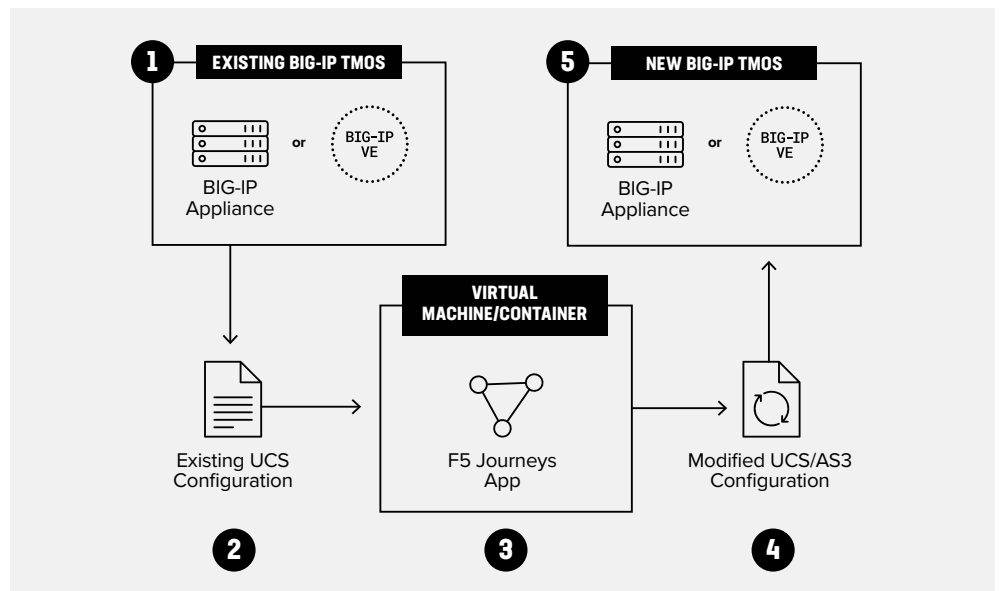


Figure 1: Key steps when using Journeys to migrate workloads between BIG-IP TMOS instances

- 1 Step 1:** Locate the UCS file on BIG-IP which contains the configuration information for the app(s) that are to be migrated.

MIGRATING WORKLOADS
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- 2 **Step 2:** Export the UCS file and upload this to Journeys or stream the configuration file directly to Journeys from the source BIG-IP.
- 3 **Step 3:** Select the desired target software version and execute the configuration migration, with Journeys automatically modifying the configuration to be compatible with the new software version. Journeys offers a configuration editor where users can manually edit the configuration and identify any compatibility issues which will be highlighted. This editor also offers pre-deploy [load validation](#) functionality which can check whether the modified configuration will load on the destination BIG-IP instance successfully.
- 4 **Step 4:** Journeys will output the modified configuration file which can be manually deployed to the new instance or automatically deployed directly from the Journeys app. In the case of per-app migrations, individual AS3 declarations will be created for each app that can be manually or automatically deployed.
- 5 **Step 5:** Journeys will provide a post-migration diagnostics report verifying the migration status in cases where the application has been automatically deployed to the target instance from Journeys. (Note that a diagnostics report is not provided when the configuration is manually applied to a target BIG-IP instance).

How Does Journeys Compare to the BIG-IP Platform-Migrate Function?

The BIG-IP platform-migrate function that helped perform simple migrations of configurations from older BIG-IP platforms to newer BIG-IP platforms is no longer actively maintained by F5. The F5 Journeys Migration Utility can be considered a direct replacement for the platform-migrate function and should instead be used as it provides the following benefits:

- Automatically detects feature parity gaps between BIG-IP solutions and modifies configurations to ensure compatibility.
- Utilizes a Guided User Interface (GUI) with policy editors to simplify the migration process.
- Automatically deploys modified configurations to target BIG-IP instances directly from the Journeys Utility.
- Enables you to perform per-app migrations or entire BIG-IP system configuration migrations to migrate at your own pace.
- Delivers access to post-deployment reports to validate that migrations have been successful.
- Is continuously developed and actively maintained by F5 to deliver new functionality and fix newly discovered bugs.

Conclusion

Migrating applications and their configurations to newer BIG-IP platforms and software has historically been a time-consuming, arduous process for some users. F5 Journeys Migration Utility is now available to streamline and automate this process.

Journeys is free to use and accelerates migrations between BIG-IP TMOS instances by over 10X depending on the migration use case and complexity. Journeys automatically modifies configurations to be compatible with newer devices and software versions while resolving issues wherever possible, eliminating much of the manual, time-consuming configuration tinkering usually associated with migrations between BIG-IP instances.

Whether migrating an entire BIG-IP configuration or individual mission-critical apps, Journeys helps you migrate applications confidently, securely and at your own pace.

More Information

For more information about how F5 Journeys can help streamline your BIG-IP migrations, please review the resources below:

- [DevCentral GitHub Repository for Journeys Migration Utility](#)
- [Journeys Migration Utility Demonstration Video](#)

