

# Driver timeout multipliers

As described in our [Changing default timeouts](#) article, some drivers use a multiplier for their relevant CLI data retrieval timeout. This article lists all drivers using such multipliers.

## Why are multipliers used?

We use timeout multipliers in cases where we know that a device behaves in a very inconsistent way, or we know that the device by default takes extremely long to output its backups. Please note these multipliers only apply to Backups jobs, **NOT** to Mass Config Push. If you wish to change timeouts for Config Push, either change the default settings, or use [Advanced Settings for Config Push](#). Here are 2 examples why multipliers need to be used for backups:

### 1) MikroTik RouterOS and inconsistent paging

MikroTik ROS normally uses paging for output (for example, try running `/interface print` on a router with multiple interfaces when the terminal vertical size is low). This means our ROS driver must support paging, or Mass Config Push would not work as expected. However, the backup command on ROS (`/export`) is NOT paged. On MikroTiks with very long config, high CPU load, or if many items in the config database on the device exist (such as full BGP route tables), the output of `/export` will take a long time. Since the default per-page timeout is 20 seconds, backups would routinely fail on such routers. This is why we introduced a multiplier to the timeout value.

### 2) Ruckus SmartOS and extremely long backups

Ruckus devices running SmartOS - such as Ruckus Unleashed and Ruckus ZoneDirector, can take over 15 minutes to output their full backups. You can test this by yourself by logging into one of these devices using your usual SSH client, and running `show config`. Since we know these devices output their config extremely slow, we use a timeout modifier to make sure these devices work properly with Unimus.

## Full documentation

Device type / family	Supports paging	Used timeout type	Default timeout	Multiplier	Actual timeout (using defaults)
Cisco WLC	Yes	unimus.core.cli-expect-timeout	20 seconds	3	60 seconds
Datacom switches	Yes	unimus.core.cli-expect-timeout	20 seconds	3	60 seconds
Ericsson IPOS	Yes	unimus.core.cli-expect-timeout	20 seconds	3	60 seconds
Ericsson SGSN	Yes	unimus.core.cli-expect-timeout	20 seconds	3	60 seconds
Exinda	Yes	unimus.core.cli-expect-timeout	20 seconds	15	300 seconds (5 minutes)
Extreme WLC	No	unimus.core.max-backup-timeout	75 seconds	5	375 seconds (6 minutes 15 seconds)
Fortinet FortiOS (FortiGate, FortiWeb, etc.)	Yes	unimus.core.cli-expect-timeout	20 seconds	5	100 seconds
MikroTik RouterOS	Yes	unimus.core.cli-expect-timeout	20 seconds	5	100 seconds
Perle IOLAN	Yes	unimus.core.cli-expect-timeout	20 seconds	2	40 seconds
pfSense	Yes	unimus.core.cli-expect-timeout	20 seconds	4	80 seconds
RedCarrierSwitch	Yes	unimus.core.cli-expect-timeout	20 seconds	3	60 seconds
Ruckus SmartOS (Unleashed / ZoneDirector)	No	unimus.core.max-backup-timeout	75 seconds	15	1125 seconds (18 minutes 45 seconds)
Ruckus vSZ (vSZ-E, vSZ-H)	Yes	unimus.core.cli-expect-timeout	20 seconds	45	900 seconds (15 minutes)
Watchguard Firewall	No	unimus.core.max-backup-timeout	75 seconds	5	375 seconds (6 minutes 15 seconds)

Zhone	Yes	unimus.core.cli-expect-timeout	20 seconds	30	600 seconds (10 minutes)
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