

# So Yeah, Regex is Bad



Jason Rahm, 2011-22-06

Don't get me wrong, regex is awesome, and entirely useful—sometimes it's the only option, it's just not the *best* tool of choice for wire speed applications. Often the sys-admin and network type converts to BIG-IP will find the `regex` tcl command and go that route because it's familiar. If that describes you, please let me introduce you to a couple more appropriate commands:

- `scan`
- `string`

These two commands will cover a great percentage of **regex**'s use cases, and will save significant resources on the system. Don't buy it? Here's an example:

```
% set ip "10.10.20.200"
10.10.20.200
% time { scan $ip {%d.%d.%d.%d} a b c d} 10000
2.1713 microseconds per iteration
% time {regex {[0-9]{1,3}}\.[0-9]{1,3}}\.[0-9]{1,3}}\.[0-9]{1,3}} $ip matched a b c d} 10000
34.2604 microseconds per iteration
```

Two approaches, same result. The time to achieve that result? The **scan** command bests **regex** by far. I'll save you the calculation...that's a 93.7% reduction in processing time. **93.7 percent!** Now, mind you, the difference between 2 and 34 microseconds will be negligible to an individual request's response time, but in the context of a single system handling hundreds of thousands or even millions of request per second, the difference matters. A lot.

Thanks to (who else?) hoolio for the example. For other optimization considerations, check out the [iRules Optimization 101 series](#).

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