



## F5 Next Generation Hardware: Getting More for Less

F5's next generation hardware platforms were designed to improve performance while reducing costs to operate. Using state-of-the-art hardware components, F5's BIG-IP 1600 platform consumes about the same amount of power as its predecessor the BIG-IP 1500. But the use of that power is dramatically more efficient, offering a 70-90% increase in performance, resulting in unparalleled Performance per Watt (PPW) in an application delivery hardware platform.

### Power Consumption

In a cost-driven environment, reducing the cost to operate infrastructure devices is paramount. One of the ways in which this can be achieved is to reduce power consumption, while another is to squeeze more capacity out of the same amount of power.

BIG-IP 1600 consumes about the same amount of power as the BIG-IP 1500, but increases capacity in terms of layer 7, layer 4, and SSL transactions. This results in a much more efficient hardware platform with a dramatically improved PPW rating.

	BIG-IP 1500	BIG-IP 1600
<b>BTUs/Hour</b>	488	512
<b>Watts</b>	143	150
<b>Annual Cost</b>	\$133.49	\$140.02

### Improved Performance per Watt

While reducing power consumption is desirable, it is imperative that the next generation infrastructure hardware platforms improve efficiency in terms of performance.

BIG-IP 1600 dramatically increases the PPW of F5's hardware platforms, providing 70-90% *more* performance per watt over the BIG-IP 1500 as measured by each platform's performance in terms of the number of layer 4 and layer 7 transactions<sup>1</sup> per watt.

	BIG-IP 1500	BIG-IP 1600
<b>Layer 4 CPS</b>	22000	60000
<b>Layer 7 TPS (1:1)</b>	5000	10000
<b>Layer 7 TPS (1:INF)</b>	22000	40000
<b>PPW Layer 7 (1:1)</b>	35	67
<b>PPW Layer 7 (1:INF)</b>	154	267
<b>PPW Layer 4</b>	154	400

The BIG-IP 1600 further improves performance by doubling its capacity to perform SSL transactions. Offloading SSL from servers to the BIG-IP provides even greater savings and efficiency by freeing resources on servers and increasing their performance per watt, making the entire application infrastructure more efficient using less power. Combined with the increased power efficiency of the platform this results in a 138% PPW improvement.

	BIG-IP 1500	BIG-IP 1600
<b>SSL TPS</b>	2000	5000
<b>PPW (SSL)</b>	14	33
<b>SSL PPW Improvement</b>		<b>138%</b>

<sup>1</sup> [1:1] - HTTP 1.0 or HTTP 1.1 with 1 transaction per connection and OneConnect disabled.

[1:INF] - HTTP 1.0 or HTTP 1.1 with 1 transaction(request) per connection and OneConnect enabled