5G success is about tangible benefits

5G is coming, along with the potential for new business verticals. Cisco sees 5G as an opportunity for providers to deliver cloud to client connected services. We believe that this is how mobile service providers will be able to differentiate themselves and find tangible 5G success. With this in mind, Cisco is helping service providers move beyond being bandwidth providers to leveraging their networks for new business models—connecting customers to applications in the cloud. By implementing the right 5G network, the resulting benefits are measurable, ranging from data rate improvements to reduction in E2E latency, to an increase in cell site support. As the savviest companies realize, putting into place a 5G network that also has room to grow for additional capabilities is the only way forward.

What exactly does 5G have to offer?

While 4G was about smart phones, 5G is about the cloud. Cisco is taking a cloud-to-client approach, unifying multivendor solutions into a single, standards-based architecture while emphasizing a secure network that can help customers start delivering 5G services today. This approach will work for business, consumer, and IoT—bringing in “new 5G money” with a compelling value chain.

5G is where Cisco’s breadth of offerings has the most bang for the buck for clients, with solutions positioned across the entire service layer: service enablement, the services themselves, the 5G core, the IP transport, the cloud, and more.

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate single user data rate improvement</td>
<td>10X</td>
</tr>
<tr>
<td>Reduction in E2E latency based on edge distribution</td>
<td>20X</td>
</tr>
<tr>
<td>Increase in cell site support at network level</td>
<td>7.5X</td>
</tr>
</tbody>
</table>

Specific improvements vary and depend on many factors. Source: Cisco Mobile Business Group lab testing 2018. NCS540 Delivers 300 Gbps Capacity Vs 40 Gbps in previous generation traffic growth was 6x 2012-2018 (Cisco VNI)

Cisco 5G has the specific solutions that service providers need:

- **A Unified Enablement Platform:** This solution brings it all to the table, namely a programmable, cloud-native, automated network which enables a lifecycle of services from cloud-to-client.

- **Seamless X-Access Convergence:** Here Cisco offers increases connection bandwidth and resiliency with simultaneous connectivity to licensed, unlicensed and fixed-wireline access.

- **An unmatched 3-Stage Realization Program:** Cisco’s professional services approach towards working with clients lets you maximize revenues, while delivering new connected services experiences for customers through your network.

© 2018 Cisco and/or its affiliates. All rights reserved.
At a glance

Cisco has the solutions that providers need today in order to stay competitive, and one step ahead of other companies competing in the same space. What can service providers expect in the coming months, and what will they need to do to adapt to this rapidly changing landscape?

- Service providers will need to employ different strategies based on region, given different applications and adoption rates
- Recognize that growth will come from vertical use cases, going beyond the saturated consumer smart device market
- Start with enhanced mobile broadband (eMBB) while ensuring the network providers implement today supports the next phase of 5G opportunities

Talk to Cisco today to find out how you can keep your company in the game when it comes to expanding your platform to include the opportunities that 5G has to offer.

Let’s look at seven key areas of Cisco 5G

1. **Converged Packet Core and IP Transport**
   - Cisco has converged on a single next-generation packet core platform for licensed, unlicensed and IoT services. This converged packet core is automated to simplify service creation and reduce time to revenue, so you can exponentially increase revenue opportunity.

2. **Network Slicing**
   - We believe that Network Slicing should be able to provide resources on a per customer, per service level—rather than bundling all of the IoT services into one slice and the business services into another. We use ruthless simplification with end-to-end automation to make this happen.

3. **Service Automation**
   - No other vendor in the industry has the breadth of cross-domain automation solutions as Cisco, building on Cisco Crosswork Network Automation as the first closed-loop, mass scale network automation solution that embraces multi-vendor networks.

4. **Edge Distribution**
   - Our converged core’s distributed architecture enables a more intelligent Multi-Access Edge Compute (MEC) solution.

5. **Virtual Scaling**
   - Virtualization is about elasticity to put what you need, where you need it, when you need it, and Cisco does this through cloud-native applications and microservices.

6. **Security**
   - Security cannot be an afterthought, or restricted to perimeter appliances e.g. firewalls, and must be inherent in the complete service offer. We treat the security needs holistically, to make sure all bases are covered and customers can rest easy that all operations, end-to-end, are secure.

7. **Professional Services**
   - Last but not least, we make it easy to deploy by offering Cisco professional services and our 3-step program, where our expertise and resources help clients go to market more quickly.