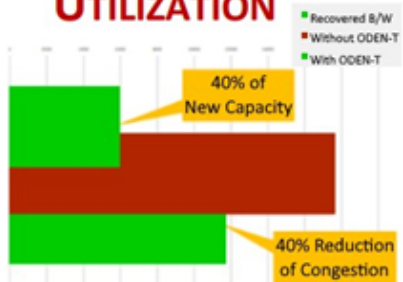




# ODEN-T

3G speeds on 2G, 4G speeds on 3G

## OPTIMIZED BANDWIDTH UTILIZATION



### Benefits of ODEN-T integration

- > Efficiency: Improved efficiency of downlink data transmitted over the RF bandwidth
- > Performance: Improved performance in geographic areas of reduced service coverage
- > Urban: Improved performance in highly congested areas such as urban cities
- > Rural: Reduction or elimination of handset wait time for data and video downloads
- > Lossless: No reduction in optical clarity to the handset user
- > No-wait: Reduction or elimination of handset wait time for data and video downloads

## ODEN-T Value Proposition

Fully tested and unlike anything else available in the marketplace

As ODEN-T is not an application on the smartphone, the installation requirements for ODEN-T at the TELCO are minimal. ODEN-T is installed at the Network Operations Center (NOC) and hosted on a transparent proxy server or cloud-based server. Connectivity is provided via two ports, one routable to the internet and one to receive requests from the smartphone for routing to the ODEN-T proxy server. The ODEN-T proxy server receives the smartphone data request and routes these requests to the media provider via the internet. The requested data is sent back to the ODEN-T proxy server for compression and routed to the smartphone. Note, the data received from the ODEN-T server by the smartphone is ready for immediate viewing upon receipt. An internal cache in the ODEN-T server will store any images, video, and CSS information in both the compressed and uncompressed state. IP metrics will be fed to the ODEN-T server and used to determine the outgoing and originating client IP address.

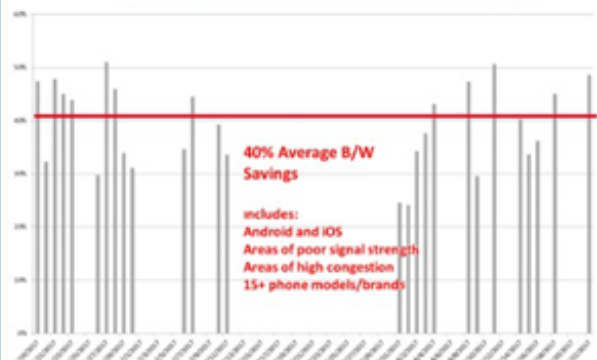
### ODEN-T

40% AVERAGE BANDWIDTH SAVINGS OVER 25+ POC TESTS

#### AVERAGE PER APP

FACEBOOK = 49%  
YOUTUBE = 35%  
INSTAGRAM = 35%

### DAILY COMPRESSION AVERAGE



We are changing the way data is secured and moved with our innovative SALT approach: Sea, Air & Land Technology. We have been providing revolutionary, patent-driven compression and encryption products for over 15 years.

TIMMES USA  
Clearwater - Florida  
+1 (727) 712-0190

TIMMES Dubai  
United Arab Emirates

TIMMES Pakistan  
Lahore - Pakistan

## Quality of Experience

Customers demand excellence from their mobile data provider. Handset wait times are on the forefront of customer satisfaction. The ODEN-T appliance dramatically reduces handset wait time by optimizing the efficiency of the cellular spectrum and improving network performance in low signal and reduced coverage areas.

TIMMES has thousands of data points with multiple handsets on Android and iOS in the most severe environments. In all Proof of Concept (POC) demonstrations, ODEN-T handsets performed superior to handsets without ODEN-T. Most significant is the elimination or reduction of handset wait-time for the customer to access video content without timing out.

### DEMONSTRATION OF 40.7MB NASA IMAGE



GALAXY S7 ANDROID PHONES – COMPARISON SHOWS:  
INCREASED RF SPECTRUM SAVINGS  
REDUCTION OF HANDSET WAIT TIME  
100% OPTICAL CLARITY RETAINED

**31.4 GB/month**  
AVERAGE U.S. MOBILE  
CUSTOMER DATA CONSUMED  
PER MONTH IN 2018

**UNLOCK THE FULL POTENTIAL OF YOUR NETWORK**  
> ODEN-T delivers an average of 40% savings of data consumed by customers. This frees up bandwidth to support more subscribers.  
> Reduce congestion during peak hours in urban areas or give rural areas 4G performance on 3G signals.

## Return on Investment

Increased customer satisfaction will generate more customers. ODEN-T increases the number of billable customers for leased bandwidth. Unused spectrum can be pulled back or sub-leased increasing revenue. Alternatively, additional service offerings could be marketed to customers increasing sales of billable services to customers.

Deploying a 5G network in a high-density urban area alone can cost billions of dollars. Customers expect the same level of service when they travel to less capable regions, in their businesses or their homes. ODEN-T reduces the immediacy of the requirement for 5G coverage in low signal areas. This is a bottom-line cost savings and a better brand experience in one.

## Deployment is Simple

The ODEN-T appliance is a transparent proxy that is typically hosted inside the NOC security enclave or in the cloud. The installation requirements for ODEN-T are minimal for the Telco. Connectivity is provided via two ports, one routable to the internet, and the other to receive requests from the handset for routing to the ODEN-T system. The ODEN-T system receives the handset data request, forwards the request to the media provider via the internet. The requested data is sent back to the ODEN-T system where the data is optimized and routed back to the handset.

> Once TIMMES has received a signed POC Test Agreement and USG approval, we will schedule to ship the ODEN-T appliance and arrange for TIMMES personnel to arrive in country to conduct the POC test. The results of the POC test will drive the next steps for scaling and integration based on your needs.

> Proof of Concept demonstrations are typically scheduled in a 30 day format, with handset testing beginning on the third day once a baseline has been established for performance metrics. The data will be gathered simultaneously on identical handsets provided by the Telco. One handset will be configured normally on the existing network; the other handset will access the existing network and be routed through the ODEN-T appliance. A TIMMES field agent will be deployed at our expense to conduct the trial to ensure everything is working as intended and to gather data for our presentation of the findings.



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