



OUTAGE COMPENSATION CELL ZOOMING

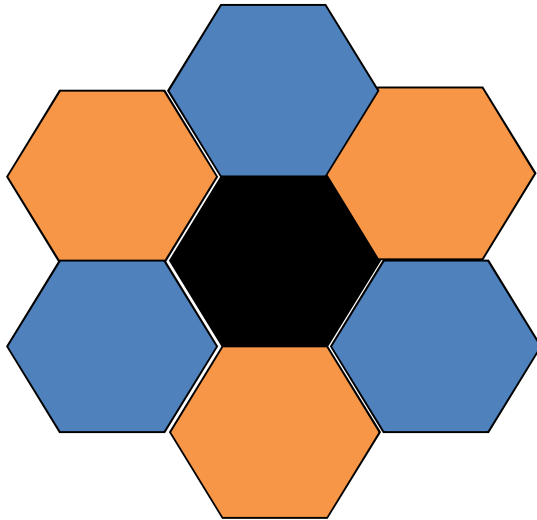
TRAFFIC ANALYSIS

Presented at The Kabarak University Conference
by

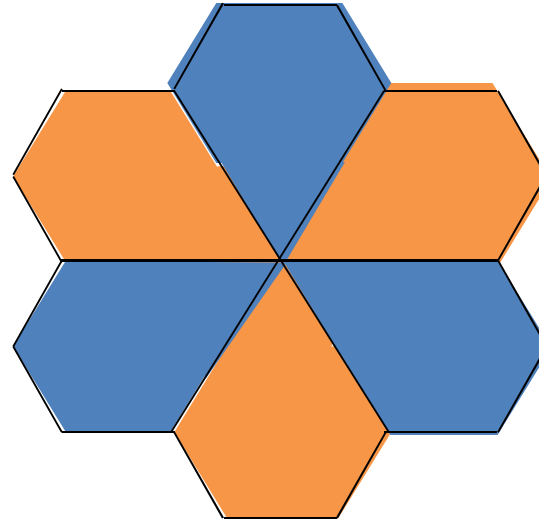
Manegene S N

Co Authors
Dr. Kibet L P
Dr. Musyoki S

Outage Compensation Scenario



7 Cluster cells with black cell as target



Same cluster after compensation

Fig : Outage Compensation Scenario



JUSTIFICATION

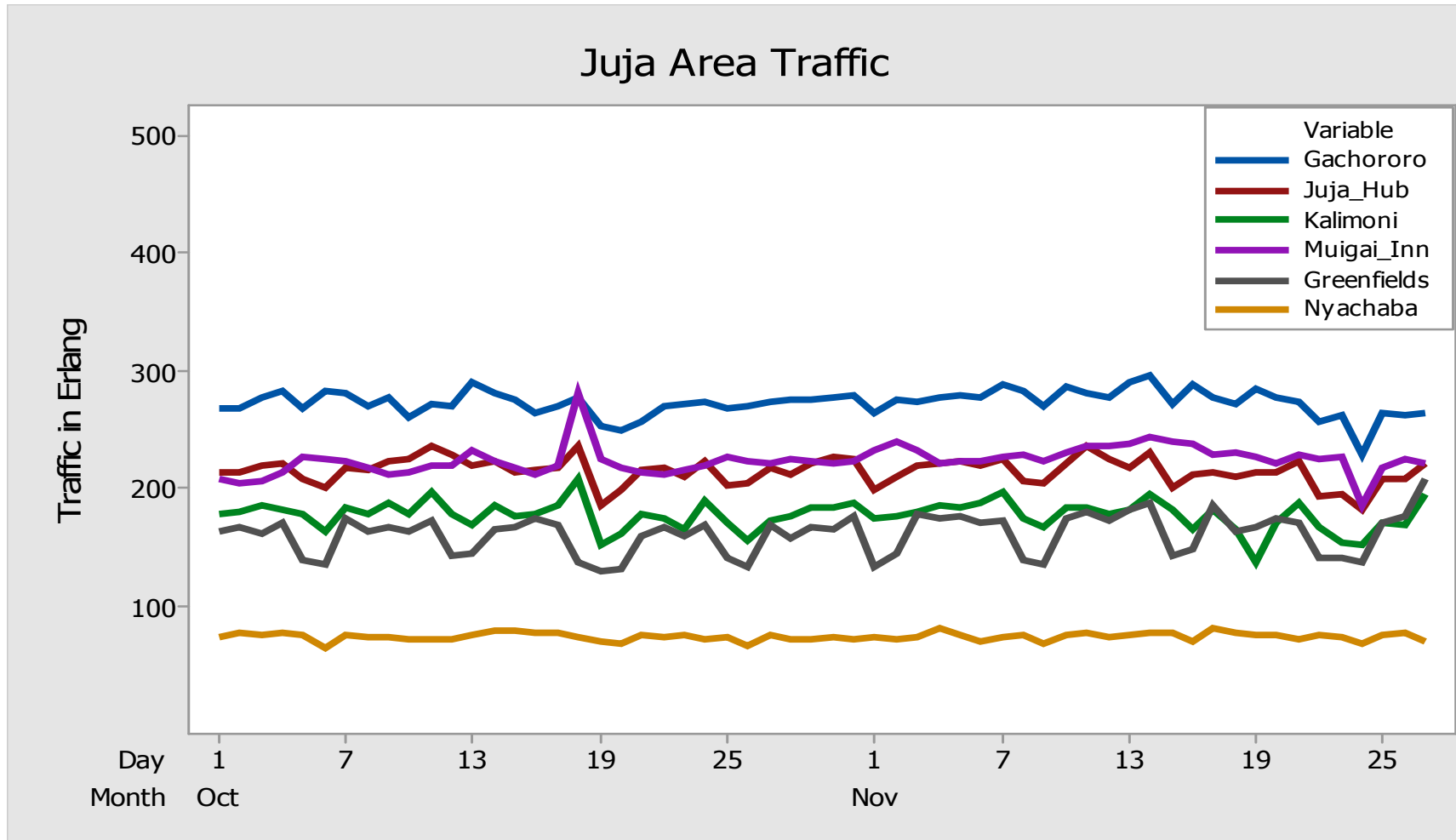
- If the solution is implemented it would contribute to
 - Cost saving
 - Faster response to fault clearance
 - Better customer experience
 - Better employee satisfaction
 - Improved employee productivity
 - Reduced human error
 - As the only available option

Factors That Enable Compensation Using Cell Zooming

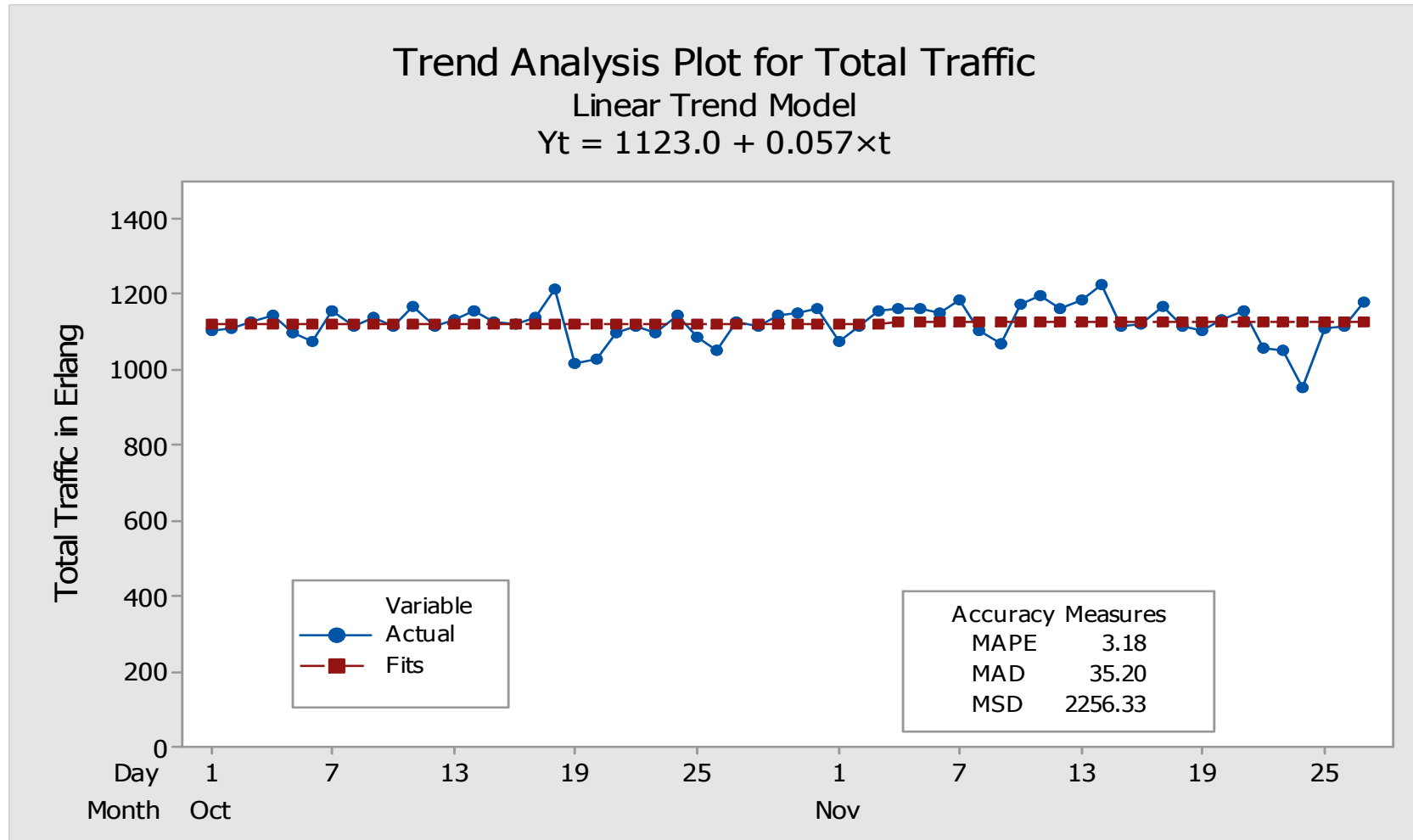


- ❖ **Predictable Subscriber Calling Pattern**
 - ❖ **Reserve Capacity**
 - ❖ **Strong Received Signal Levels**
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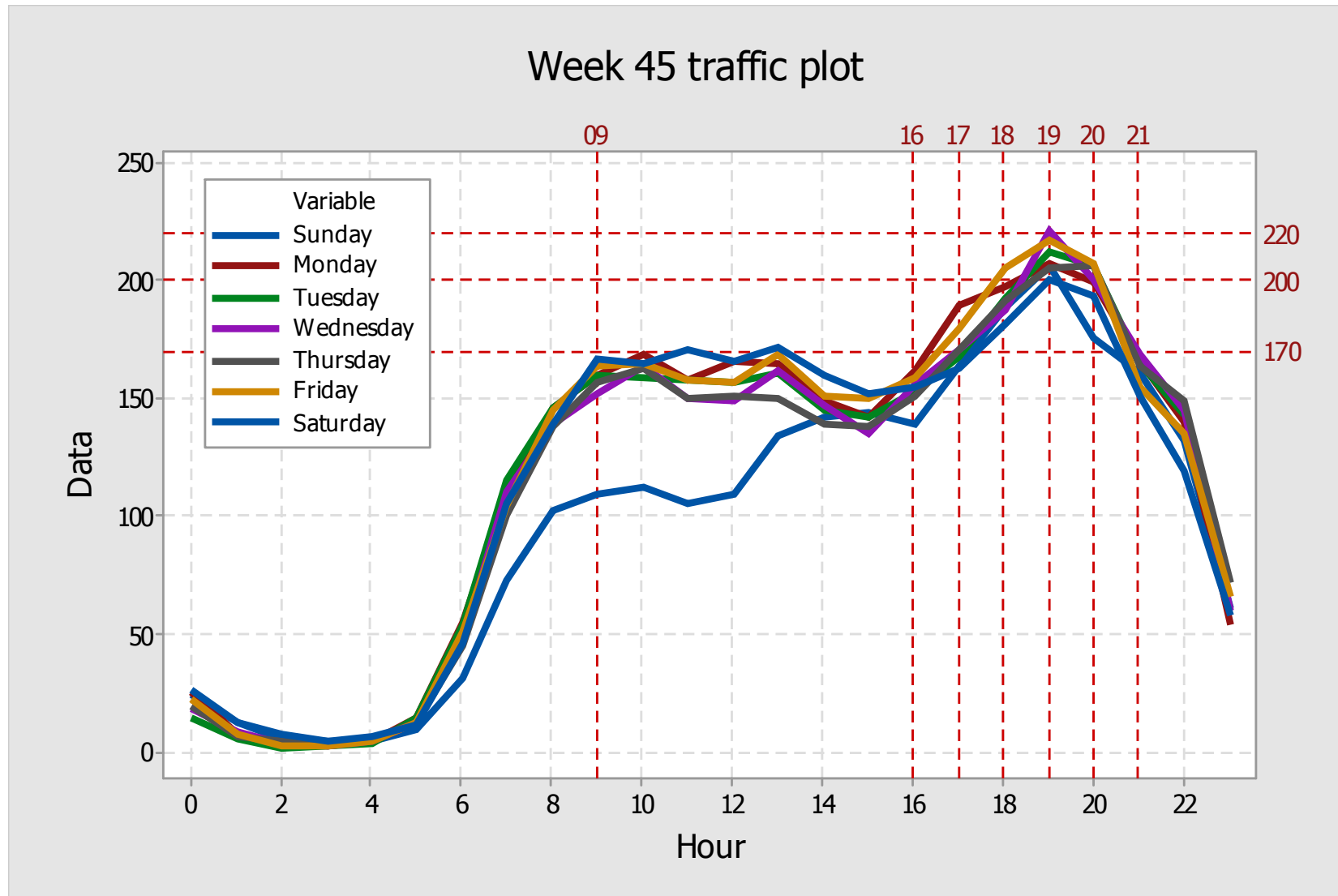
Traffic Trends Analysis



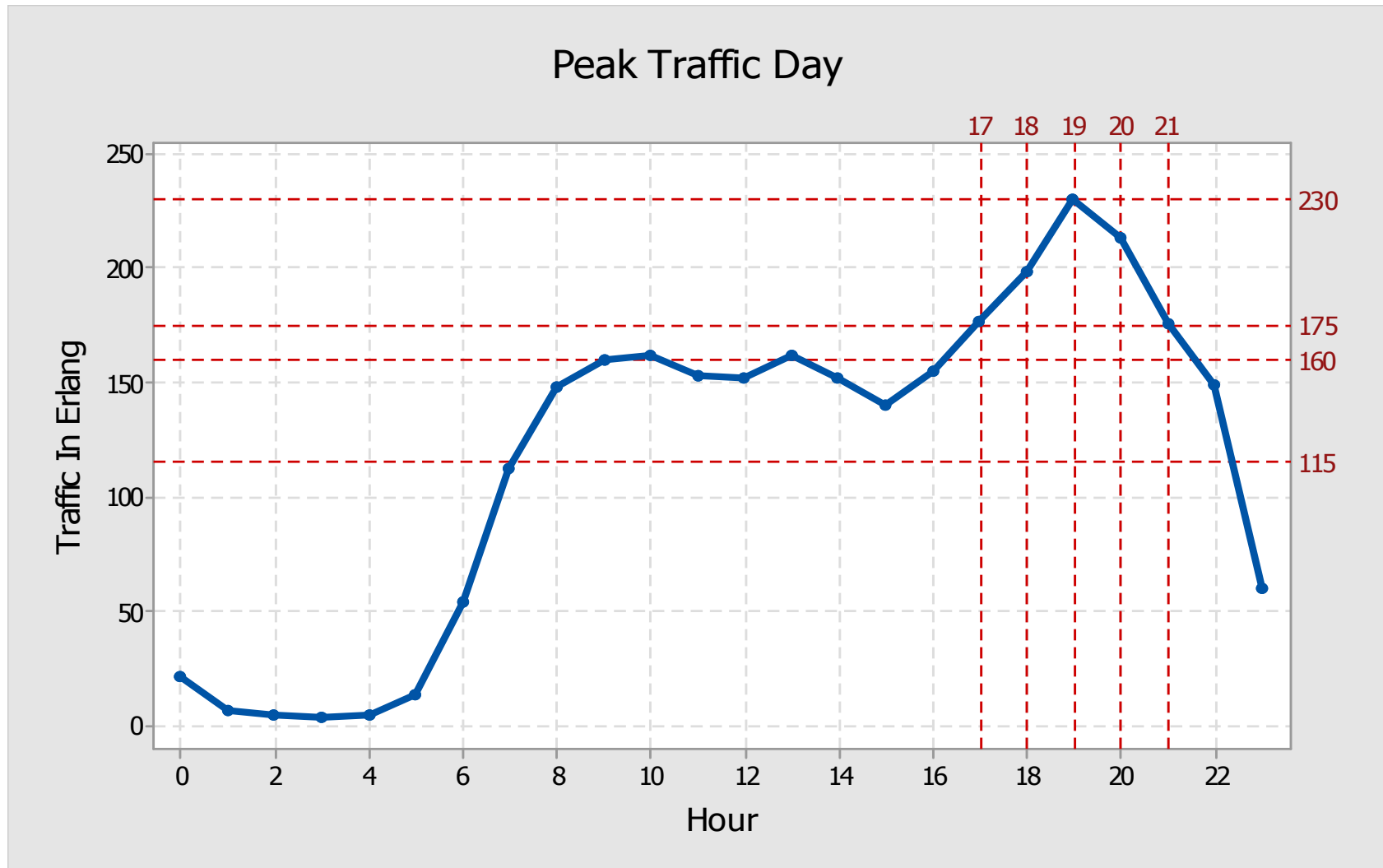
Busy Hour Trend



Week Traffic Trend



Busy day traffic trend





Conclusion

With at least 25% reserve capacity available in the network for 20 hours a day, it is possible to implement cell zooming without needing additional capacity during this period.



Conclusion

However, during the 4 hours of high traffic, it can be proposed the following methods to accommodate the extra capacity



Conclusion

- ❖ **Multi Technology Radio Access Technology (Multi-RAT)**
 - ❖ **Adaptive Multi Rate-Half Rate (AMR-HR)**
 - ❖ **Dynamic channel allocation**
 - ❖ **Queuing**
 - ❖ **Reserve Capacity**
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