



Broadband Solutions

Cerion Optimization Services, Inc.
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About Cerion

- ❖ Cerion helps wireless operators make better decisions with better outcomes.
- ❖ Cerion uses patented operations research and artificial intelligence techniques to solve complex, challenging problems and in 2006, developed the worlds first core network planning, design and optimization tool, Optimiser™.
- ❖ Headquartered in Dallas Texas, Cerion solutions are deployed with the worlds leading network operators.

Solving Complex Wireless Problems Since 2002

❖ Consulting

- Leverage our experts to solve business and technology critical problems

❖ Tools and Automation

- Improve efficiencies and reduce costs

❖ Training & Knowledge Transfer

- Empower your team

Cerion Value Proposition



Cerion improves your performance and profitability by delivering solutions that drive more agile and informed decisions

- ❖ Improved Quality of Service
- ❖ Better operational efficiency
- ❖ Improved capital efficiency and utilization of your assets
- ❖ Faster, more precise alignment between capacity and demand

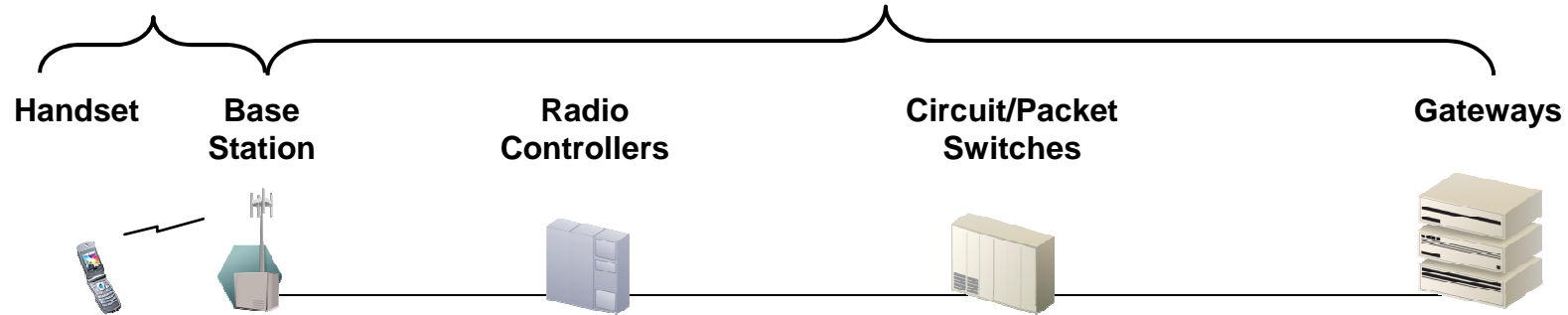
Impacts

REVENUES	IMPACT
<ul style="list-style-type: none">❖ Quality of Service❖ Enabling Higher Use Of Smart Phones❖ More Accurate Subscriber Rate Plans	<ul style="list-style-type: none">❖ Improved dropped call rate by 12%❖ Predicted and averted heavy congestion issues for major markets and events
OPERATING COSTS	IMPACT
<ul style="list-style-type: none">❖ Reducing Headcount Through Automation❖ Streamlined Processes	<ul style="list-style-type: none">❖ 35% improvement in headcount efficiency❖ >15% OPEX improvement❖ Reduced network planning time by 87%
FIXED COSTS	IMPACT
<ul style="list-style-type: none">❖ Reduce CAPEX	<ul style="list-style-type: none">❖ \$500M annually for Tier 1 US Operator❖ Typical 15% year on year CAPEX improvement

Example Operator Problem

RF Performance Optimization

RAN/Core Network Performance Optimization for 2G, 3G ... 4G



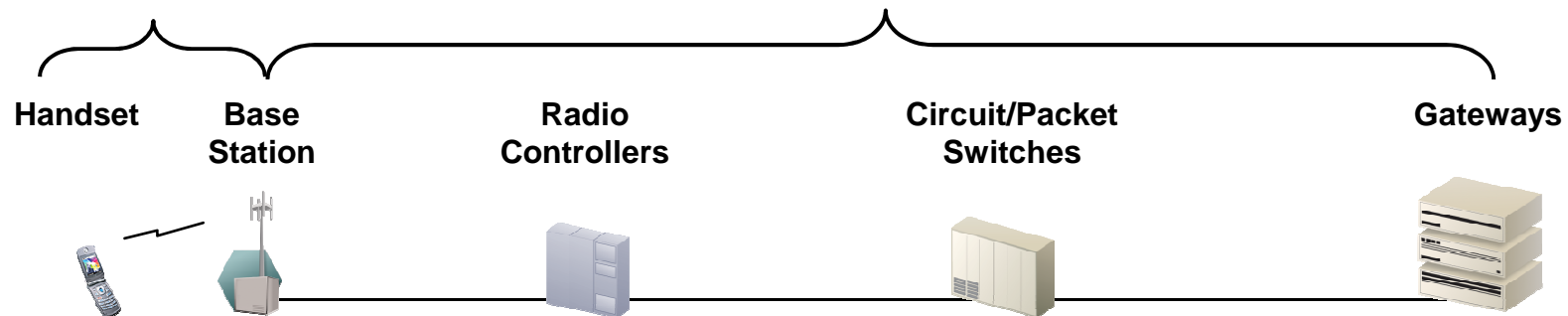
- ❖ Brand degradation
- ❖ Compromised user experience
- ❖ 'Siloed' planning environment

- ❖ Overheating of network elements
- ❖ Planning accuracy and lead time
- ❖ Multiple Vendors

Solution

RF Performance Optimization

RAN/Core Network Performance Optimization for 2G, 3G ... 4G

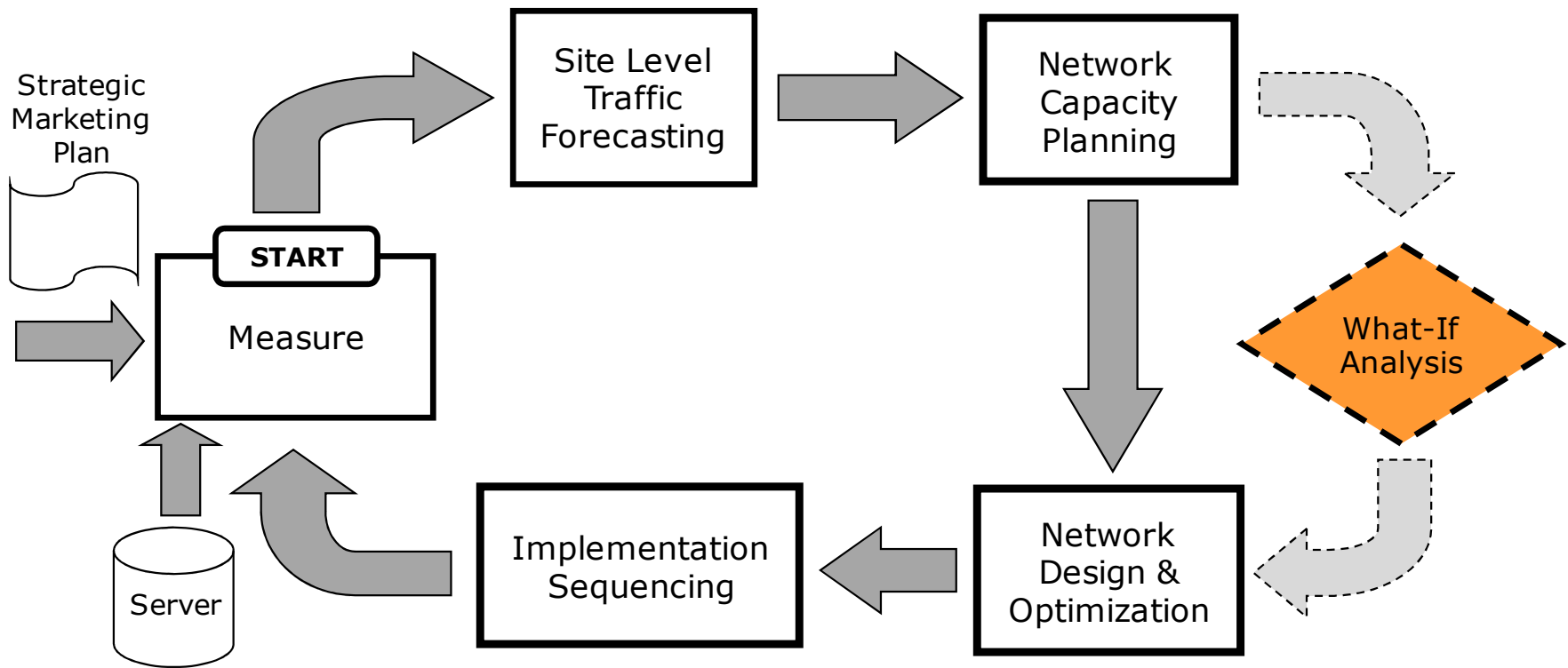



- ❖ Built a unified planning solution in a multivendor environment
- ❖ Planning was more precise and lead times were reduced from months to days
- ❖ Network was optimized to make better use of existing assets without extra capital spend

Better User Experience. Protected Brand

Example Methodology

People – Process - Tools



 Predictive Modeling & Scenario Planning

Competitive Advantages

❖ **Improved Quality of Service (QoS)**

- Better User Experience
- Reduced Churn
- Brand Protection

❖ **More Accurate Rate plans**

- Recalibrate inaccurate (or outdated) pricing models
- Stronger synergies between engineering, finance, sales & marketing
- Predictive scenario planning

❖ **Leaner Operations**

- Better utilization of network assets
- Automation and process re-engineering
- 15-30% OPEX/CAPEX reduction

Key Achievements

- ❖ The Cerion innovation team developed a mathematical model to maximize network asset allocation and ROI
- ❖ In 2005 we planned a seamless integration of two of the largest North American networks
- ❖ In 2006 we deployed the world's Core Network Optimization tool – Optimiser™
- ❖ In 2007 we supported the development of capital budget for national 3G network deployment
- ❖ In 2008 we supported network planning for the Republican National Convention
- ❖ In 2009 we supported network planning for the Presidential Inauguration
- ❖ From 2007-2009, we supported AT&T's aggressive iPhone launch through our Engineering Consulting services and state of the art tool

Customers and Partners



Contact Us



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Contact Us



For an informal discussion about how we can help you with your mobile broadband planning please contact:

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