

NXTWORK 2017

JUNIPER CUSTOMER SUMMIT

TALKING TO THE CFO

Aligning with business executives on **technology investment and digital transformation**



Juniper
NETWORKS

JACK BARRETT
MBA, MSEE, CMA

SR. DIRECTOR
Americas Marketing

LEGAL DISCLAIMER

This statement of direction sets forth Juniper Networks' current intention and is subject to change at any time without notice. No purchases are contingent upon Juniper Networks delivering any feature or functionality depicted in this presentation.

This presentation contains proprietary roadmap information and should not be discussed or shared without a signed non-disclosure agreement (NDA).



DEFINITION OF DIGITAL TRANSFORMATION

The definition of digital transformation is the realignment of, or new **investment** in, **technology**, **business models**, and **processes** to drive **new value** for customers and employees and more effectively compete in an **ever-changing digital economy**.

Brian Solis
Senior Analyst, Prophet



DIGITAL TRANSFORMATION

EXECUTING
ON IDEAS
THAT
CHANGE
BUSINESS

HOW TO TALK TO THE CFO



ALIGNING FOR GROWTH

How **digital transformation** impacts your business and why



UNDERSTANDING THE BUSINESS OUTCOME

Connecting the **business and technology conversation** for the CFO



QUANTIFYING VIRTUALIZATION AND AUTOMATION

Intro to **financial frameworks** for evaluating risk and reward



GETTING STARTED

Apply the **Juniper Digital Transformation Checklist**

HOW TO TALK TO THE CFO



ALIGNING FOR GROWTH

How **digital transformation** impacts your business and why



UNDERSTANDING THE BUSINESS OUTCOME

Connecting the business and technology conversation for the CFO



QUANTIFYING VIRTUALIZATION AND AUTOMATION

Intro to financial frameworks for evaluating risk and reward



GETTING STARTED

Apply the Juniper Digital Transformation Checklist



GE TRANSPORTATION

Idea: build the world's most technology advanced locomotive

IoT-based sensors
leveraging GE Predix

Significant operational
savings, increased safety and
reduced emissions



WALMART

OFFLINE AND ONLINE INTEGRATED EXPERIENCE

Idea: ecommerce innovation **inside** the worlds largest retailer

Big data analysis for deeper understanding of **customer behaviors and segments**

Integration of **online and offline commerce** for differentiated customer experience



GOLDEN STATE WARRIORS



Idea: leverage technology to stay closer to fan base

Mobile app using **beacon technology** for specific messages and offers

Increased ticket and **merchandise sales**

MATTERPORT



Idea: scale the potential buyer viewing experience

Enabled by **3-D** composite animations

Global impact,
higher revenues



WAYMO

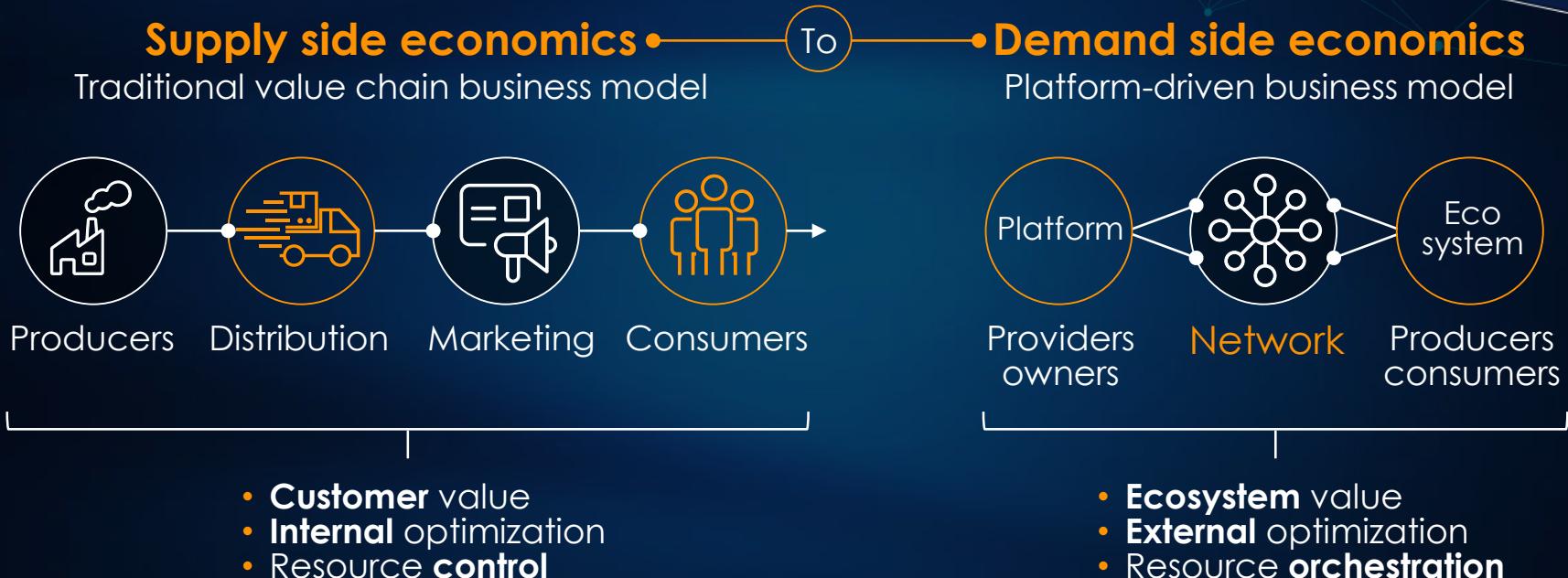
Idea: revolutionize transportation with self-driving cars

Sensors that detect and identify objects, people and motion up to 200 yards with **AI based responses**

10x safer than safest human demographic class and **40x** safer than new drivers



THE PLATFORM ECONOMY



PLATFORM-BASED BUSINESS MODELS

Bring together producers and consumers in high-value exchanges to drive growth

ADVERTISING B2C

Google 

CLOUD IT and Applications



INDUSTRIAL IoT and Industry 4.0



SIEMENS

PRODUCT B2C and B2B



LEAN B2C

UBER



\$10 TRILLION in Value from Digitization in Next Decade



E-COMMERCE

\$3.1T



AUTOMOTIVE

\$2.6T



LOGISTICS

\$2.1T



ELECTRICITY

\$1.5T



MEDIA AND
ENTERTAINMENT

\$7T

BUSINESS MODEL
DISRUPTION



PROCESS
DISRUPTION



TECHNOLOGY ENABLES BREAKTHROUGHS

Resource orchestration | Telemetry | Service orchestration | Blockchain | Big data
Analytics | Microservice | Containers | Edge computing | 5G | Virtualization
Automation | Everything as a service | Service chains | Open source

HOW TO TALK TO THE CFO



ALIGNING FOR GROWTH

How digital transformation impacts your business and why



UNDERSTANDING THE BUSINESS OUTCOME

Connecting the **business and technology conversation** for the CFO



QUANTIFYING VIRTUALIZATION AND AUTOMATION

Intro to financial frameworks for evaluating risk and reward



GETTING STARTED

Apply the Juniper Digital Transformation Checklist

THE MODERN CFO IS THINKING MORE BROADLY



Help define the
strategic direction

Improve
operational
efficiency

CFO

Select growth
investments

Minimize risk

WHICH IS WHY TRADITIONAL BUSINESS MODELS DON'T WORK



ROI

NPV and IRR are based on **static and future cash flow and discount rates**

Does **not show impact** on financial measures



TCO

TCO models are generally **asset based models**

Benefits often **not based on underlying strategic or structural changes**

DISCUSSION NEEDS TO
BE **SPECIFIC** TO DESIRED BUSINESS OUTCOME

WHAT DOES WORK?

Linking investment recommendations
to strategic and financial outcomes

Deliver **new product** offerings
Enter **new markets**
Improve **customer experience**
Engage new **business models**

Reduced **cycle times**
Faster **time to market**
Greater **asset leverage**
Reduced equipment **downtime**

Business risk
Compliance risk
Cybersecurity risk



MAKING THE CONNECTION: REVENUE DRIVERS



Outcomes

- Deliver **new product** offerings
- Enter **new markets**
- Improve **customer experience**
- Engage new **business models**



The conversation

- Customer data collection and analytics to **identify trends**
- **Ecosystem** based platform for new capabilities and high-value interactions
- **Marginal cost** of entry and **business risk**



Capabilities

- In-depth analytics engine to understand **customer behavior**
- **Open**, multi-vendor service creation platform & catalog
- Service chaining to drive **revenue generating**, platform-centric offerings
- Community driven **innovation** with open source software



Juniper solution

CONTRAIL CLOUD

- **Contrail** networking
- Red Hat **OpenStack**
- **Service Creation Platform**

MAKING THE CONNECTION: OPERATIONAL EFFICIENCY



Outcomes

- Reduced **cycle times**
- **Faster time** to market
- Increase asset leverage
- **Reduced** equipment downtime



The conversation

- **Process data** and telemetry information collection support
- **Business process** reengineering & value chain analysis to reduce process times
- Automated **policy enforcement** and **compliance**



Capabilities

- **Intent-Driven** Infrastructure, powered by **artificial intelligence**
- Real time reporting and **predictive** capacity planning
- Advanced, **real time telemetry** data
- Intelligent interface to manage traffic and **maximize network utilization**
- **End-to-end automation** of configuration, testing, deployment and operations



Juniper solution

APPFORMIX

- **Application** management & **hybrid cloud** monitoring

NORTHSTAR

- **WAN SDN** Controller

JUNOS AUTOMATION

- **DevOps** Tools, Junos Event Driven Infrastructure, and **Open APIs**

MAKING THE CONNECTION: RISK MITIGATION



Outcomes



Business risk



Compliance risk



Cybersecurity risk



The conversation

- Variable versus fixed **cost structures**
- **Industry solutions** for compliance
- Automated assessment, deduction and **policy enforcement**



Capabilities

- **Variable** and **usage**-based pricing models
- Open source for transparency, interoperability, and **future-proofing**
- Consistent **Intent-Driven** Security Policy
- Open, **multivendor** security ecosystem
- Dynamic, **automated** threat remediation



Juniper solution

CONTRAIL SECURITY

- Automate **policy** across **multi-cloud** environments

SKYATP

- Cloud-based threat prevention

CYPHORT

- Open analytics platform for incident and response mgmt

SRX/vSRX/cSRX

- Next-Gen FW, Virtualized FW and Container FW

HOW TO TALK TO THE CFO



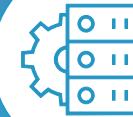
ALIGNING FOR GROWTH

How digital transformation impacts your business and why



UNDERSTANDING THE BUSINESS OUTCOME

Connecting the business and technology conversation for the CFO



QUANTIFYING VIRTUALIZATION AND AUTOMATION

Intro to **financial frameworks** for evaluating risk and reward



GETTING STARTED

Apply the Juniper Digital Transformation Checklist

THE CONVERSATION IS ABOUT RISK AND REWARD

MANAGEMENT CONCEPT

OPERATING LEVERAGE

Degree of **fixed** versus
variable cost

TECHNOLOGY INFLUENCE

- **SDN/NFV and utility models** **create** a variable-based cost infrastructure

BUSINESS IMPACTS

- **Marginal Cost** of entry, **business risk**, and **maximum profitability**

ACTIVITY-BASED COST MODELS

Evaluation of **process** costs and **value add**

- **Automation, Machine Learning** and **AI** leveraged to reduce **process cycle times**

- **OPEX, quality and knowledge worker migration**

REAL OPTIONS

Future choices **made available** from investments

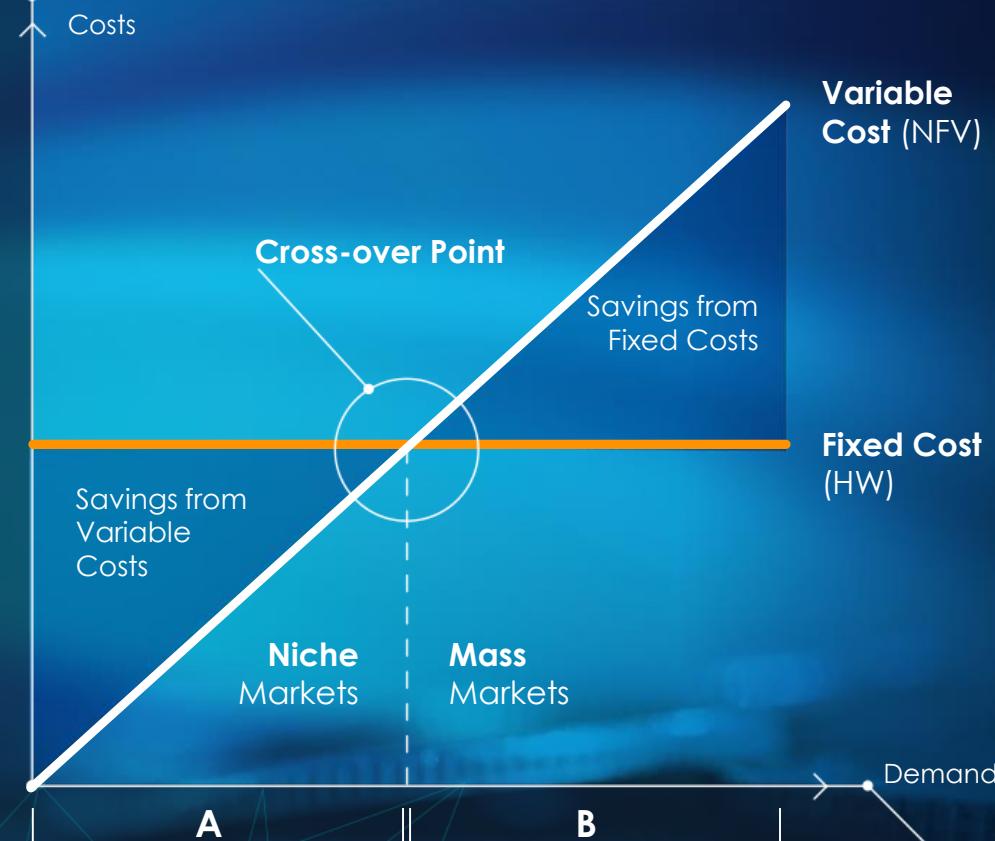
- Provide the ability to quickly **increase, decrease or hold investments** based on results

- **Decision making, optimization** of investment, and aligns to **agile/DevOps** environments

OPERATING LEVERAGE

Maximize Profitability

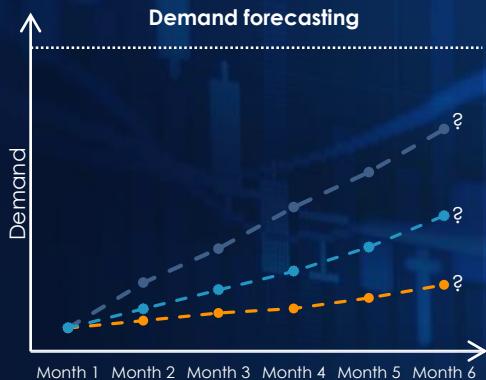
- Choose the degree of **operating leverage** (DOL) to maximize **profitability**
- Factors to consider:
 - Market size and composition
 - Certainty of demand forecast
 - Diurnal or season cycles



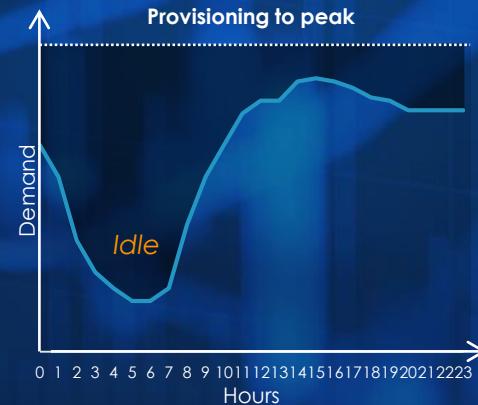
USE CASES FOR VARIABLE COST INFRASTRUCTURES



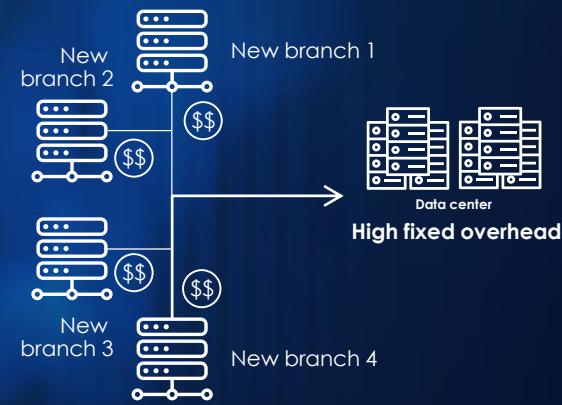
EXPANDING MARKETS OR OFFERING NEW SERVICES



SEASONAL OR BUSINESS CYCLE PEAKS



REMOTE LOCATIONS AND DATA CENTERS





DevOps

- **Software engineering** and lifecycle approach to developing and deploying new services and applications
- **Goal: Faster time to market, increase release cycles and lower failure rates**

OPERATIONAL EFFICIENCY

Minimizing OPEX



PROCESS VALUE ANALYSIS

- Examination of which business process activities provide **the most value**
- Goal: Streamline activity without sacrificing quality



BUSINESS PROCESS REENGINEERING (BPR)

- Analysis and design of **workflows** and **business process**.
- Goal: Fundamentally rethink the business to **improve customer service** and lower OPEX

TIME-DRIVEN ACTIVITY-BASED COST MODELLING

$$\text{Activity costs} = \# \text{ of events} * \sum_{i=1}^N (\text{sub-process execution time}_i * \text{resource cost}_i)$$



Eliminate or reduce
the number of
activity events



Reduce N - the
number of **sub-processes**
within an event



Reduce the time of
each of the remaining
sub-processes



Shift the cost to
a less expensive
resource

SEQUENCING AND OPTIONS **LIMIT RISK AND INCREASE BENEFITS**



TIMING

Initiate, defer or abandon

Sequenced or parallel execution



SCALE

Out: built with excess capacity or extensible structures

In: engineered such that it can be downsized

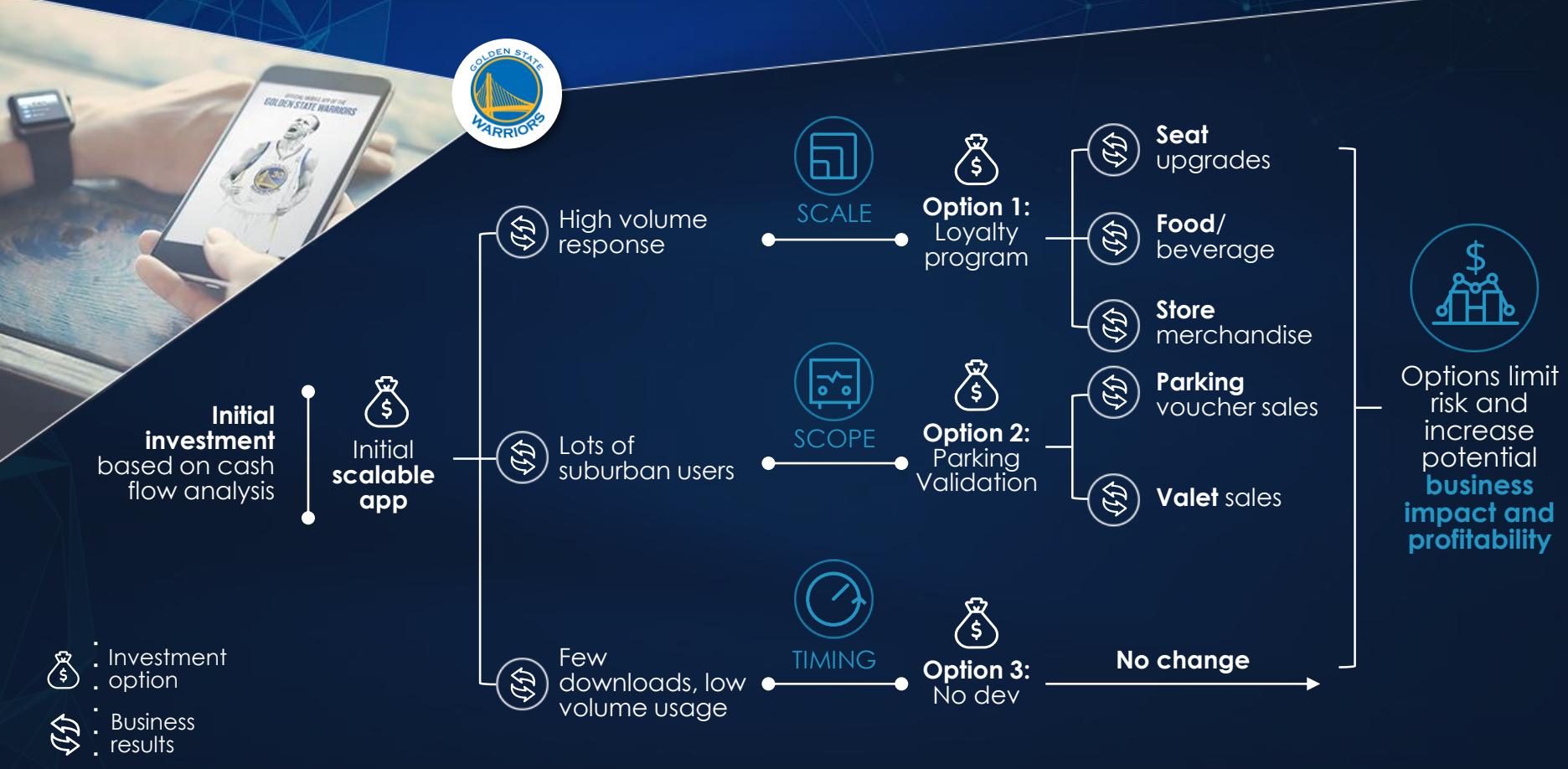


SCOPE

Product **flexibility to add or delete features**

Partnerships and ecosystems

REAL OPTIONS VALUE EXAMPLE



A FINANCIAL MODEL **FORECASTS** FINANCIAL OUTCOMES



1. Develop Revenue and Expense Forecast

- Forecast services revenue
- Activity-based expense allocation to services



2. Create pro forma financial statements

- Income statement
- Balance sheet
- Statement of cash flows



3. Deliver financial outcomes



Gross margins and operating profit



Capital requirements and change in assets



Impact on cash flow and cash position

HOW TO TALK TO THE CFO



ALIGNING FOR GROWTH

How digital transformation impacts your business and why



UNDERSTANDING THE BUSINESS OUTCOME

Connecting the business and technology conversation for the CFO



QUANTIFYING VIRTUALIZATION AND AUTOMATION

Intro to financial frameworks for evaluating risk and reward



GETTING STARTED

Apply the **Juniper Digital Transformation Checklist**

OUR POINT OF VIEW



DIGITAL TRANSFORMATION IS A DRIVER OF MODERN BUSINESS STRATEGY



Financial models provide you a common language for demonstrating how **technology investments** can impact financial outcomes



When presenting **investment options to a CFO**, focus on operational metrics and strategic outcomes



JUNIPER DIGITAL TRANSFORMATION CHECKLIST V2.0



DEFINE CONCRETE BUSINESS OUTCOMES AND VALUE

- Align to business model and identify impacts on existing business process
- Set revenue and cost driver outcome targets that influence profitable growth



PICK LIGHTHOUSE PROJECTS AND SEQUENCE FOR QUICK RETURN

- Look for higher reward lower risk projects to start with to gain early wins
- Treat suppliers and partners as you do your customers, and start to build your ecosystem



FORMULATE THE COMPONENTS OF THE FINANCIAL MODEL

- Develop both revenue and costs models to create pro-forma statements to assess investments and impacts



BUILD A GOVERNANCE FRAMEWORK

- Effectively manages and mitigates risk AND
- Embraces and encourages innovation



IDENTIFY THE EXECUTIVE SPONSOR AND SECURE SUPPORT AND COMMITMENT

- Must work with peers in support of a collective response to digital challenges
- Must understand the impact of digital transformation on all aspects of the business



TRANSFORM OPERATING MODEL AND BUILD SKILL SETS

- Organize around sources of value creation and less around organizational silos
- People skills have to be keep up with systems capabilities



INFLUENCER
in every aspect
of the IP network



BUILDER
of platforms
and services

WHY PARTNER WITH JUNIPER[®] NETWORKS



LEADER
in networking and
cloud innovation

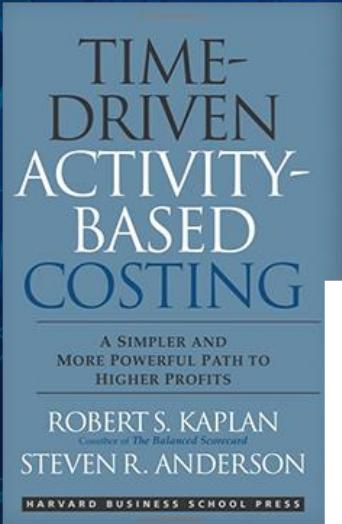


INNOVATOR
of SDN and NFV
technologies

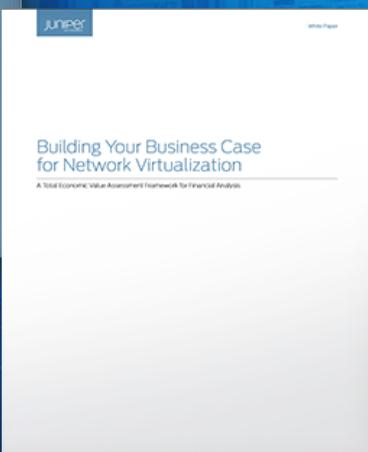


BUSINESS PARTNER
ready to help enable growth

RESOURCES



Robert S. Kaplan,
S. R. (2007)
Time-Driven Activity-
Based Costing
Boston
Harvard Business School Press



Building Your
Business Case for
Network
Virtualization
– Juniper
whitepaper



ARTICLES

Operating leverage

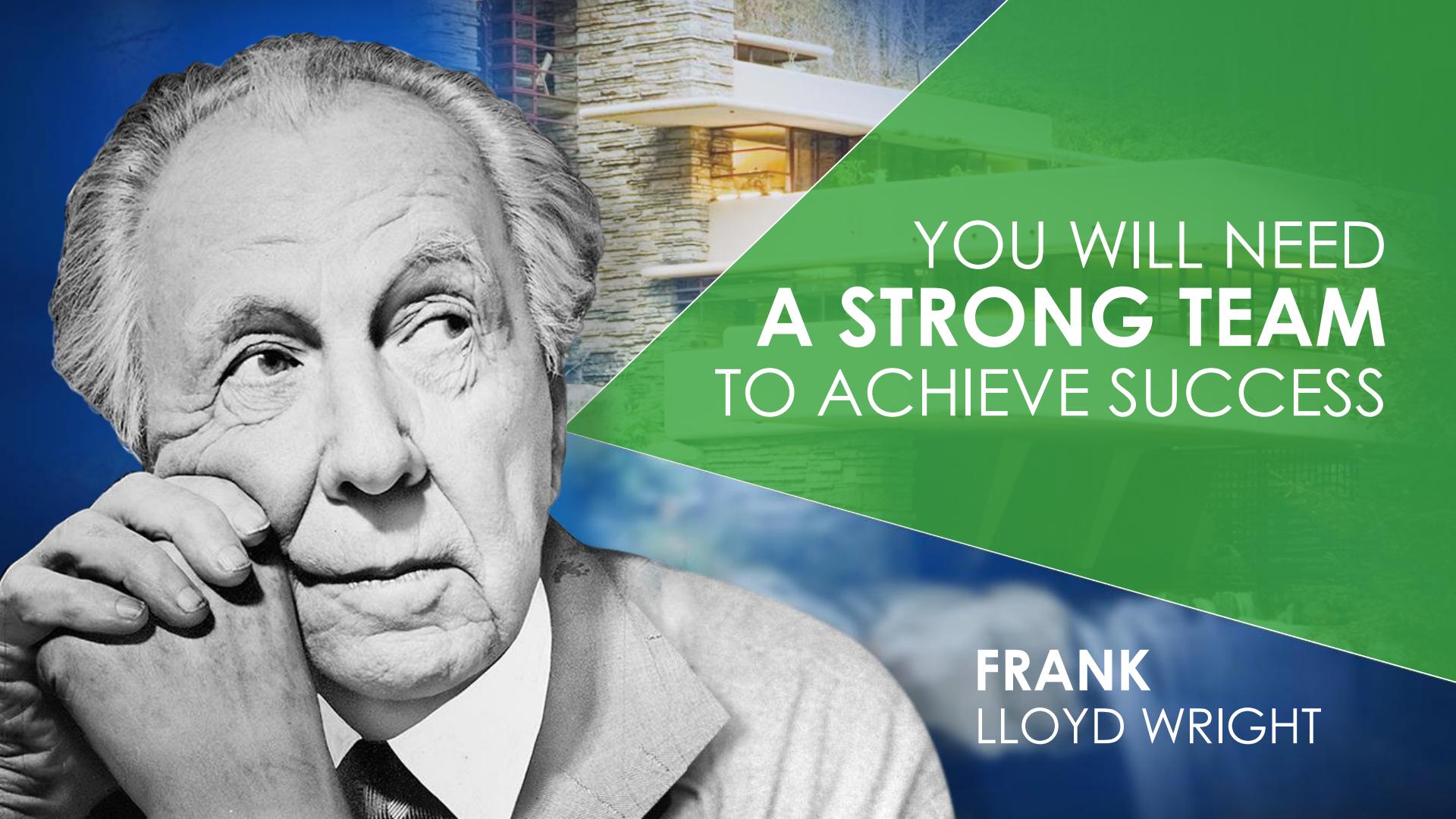
- What is Leverage? 
- How One Company Turned Business Around Using Their Operating Leverage 

Activity-based costing

- Activity-based Management - An Overview 
- Activity-based Costing at UPS 

Real options value

- Examples of Real Options in Practice 
- Making Real Options Really Work 



YOU WILL NEED
A STRONG TEAM
TO ACHIEVE SUCCESS

FRANK
LLOYD WRIGHT

HOW TO TALK TO THE CFO



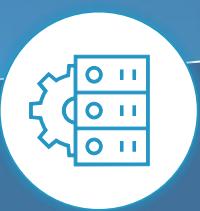
ALIGNING FOR GROWTH

How **digital transformation** impacts your business and why



UNDERSTANDING THE BUSINESS OUTCOME

Connecting the **business and technology conversation** for the CFO



QUANTIFYING VIRTUALIZATION AND AUTOMATION

Intro to **financial frameworks** for evaluating risk and reward



GETTING STARTED

Apply the **Juniper Digital Transformation Checklist**

JACK BARRETT

jbarrett@juniper.net

Q&A
