

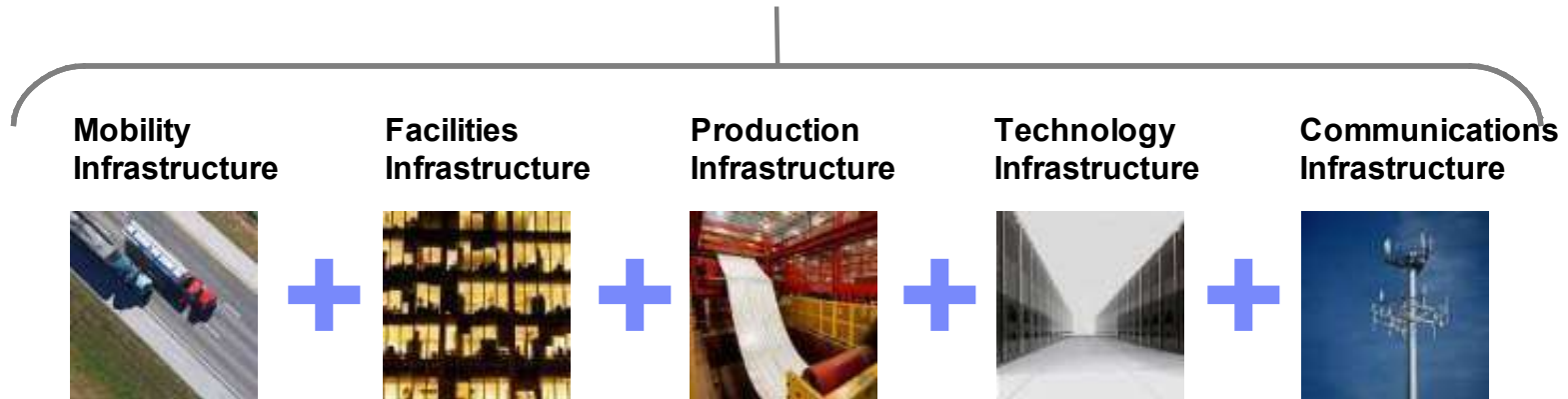
Dynamic Infrastructure: Helping Build a Smarter Planet



A smarter approach to IT will require a dynamic infrastructure that spans across the business...

Infrastructure that is instrumented, interconnected and intelligent.

Infrastructure that aligns business and technology to drive better business outcomes.



85% idle

Capacity idle in distributed computing

40 billion

Loss due to supply chain inefficiencies

70¢ per \$1

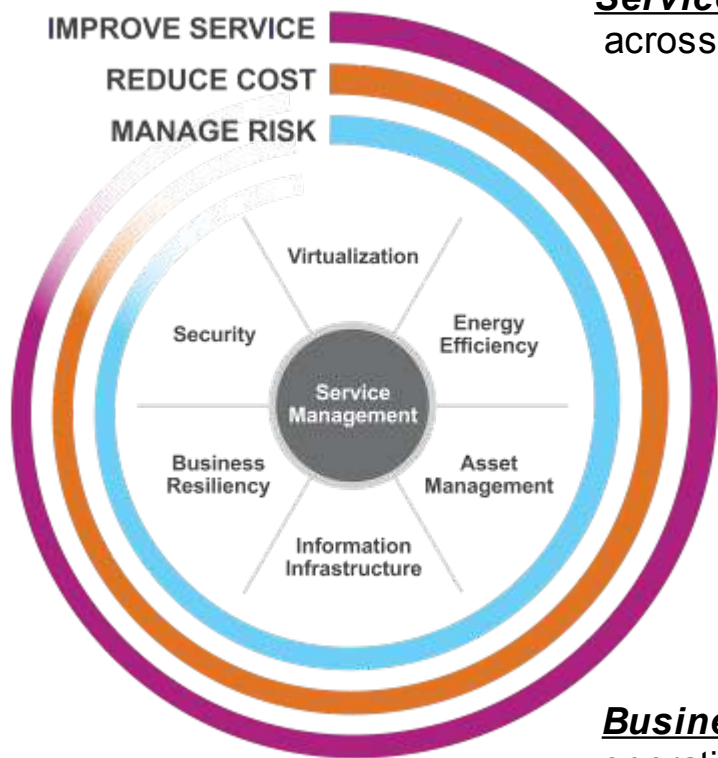
70% spent on maintaining current IT

1.5x

Storage shipment growth every year

...one that improves service, reduces cost and manages risk today.

Building a dynamic infrastructure.



Service Management – Provide visibility, control and automation across all the business and IT assets to deliver higher value services.

Asset Management – Maximizing the value of critical business and IT assets over their lifecycle with industry tailored asset management solutions.

Virtualization – Leadership virtualization and consolidation solutions that reduce cost, improve asset utilization, and speed provisioning of new services.

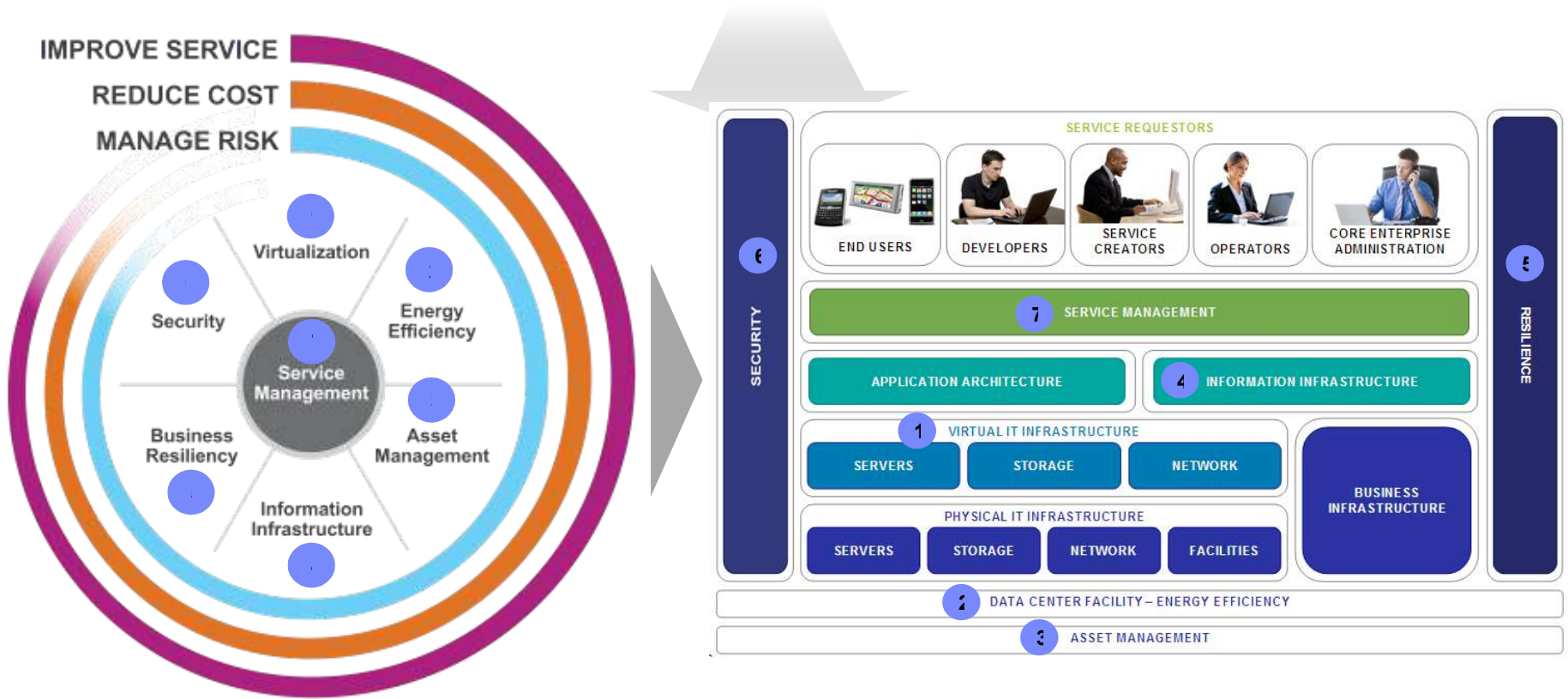
Energy Efficiency – Address energy, environment, and sustainability challenges and opportunities across your infrastructure.

Business Resiliency – Maintaining continuous business and IT operations while rapidly adapting and responding to risks and opportunities.

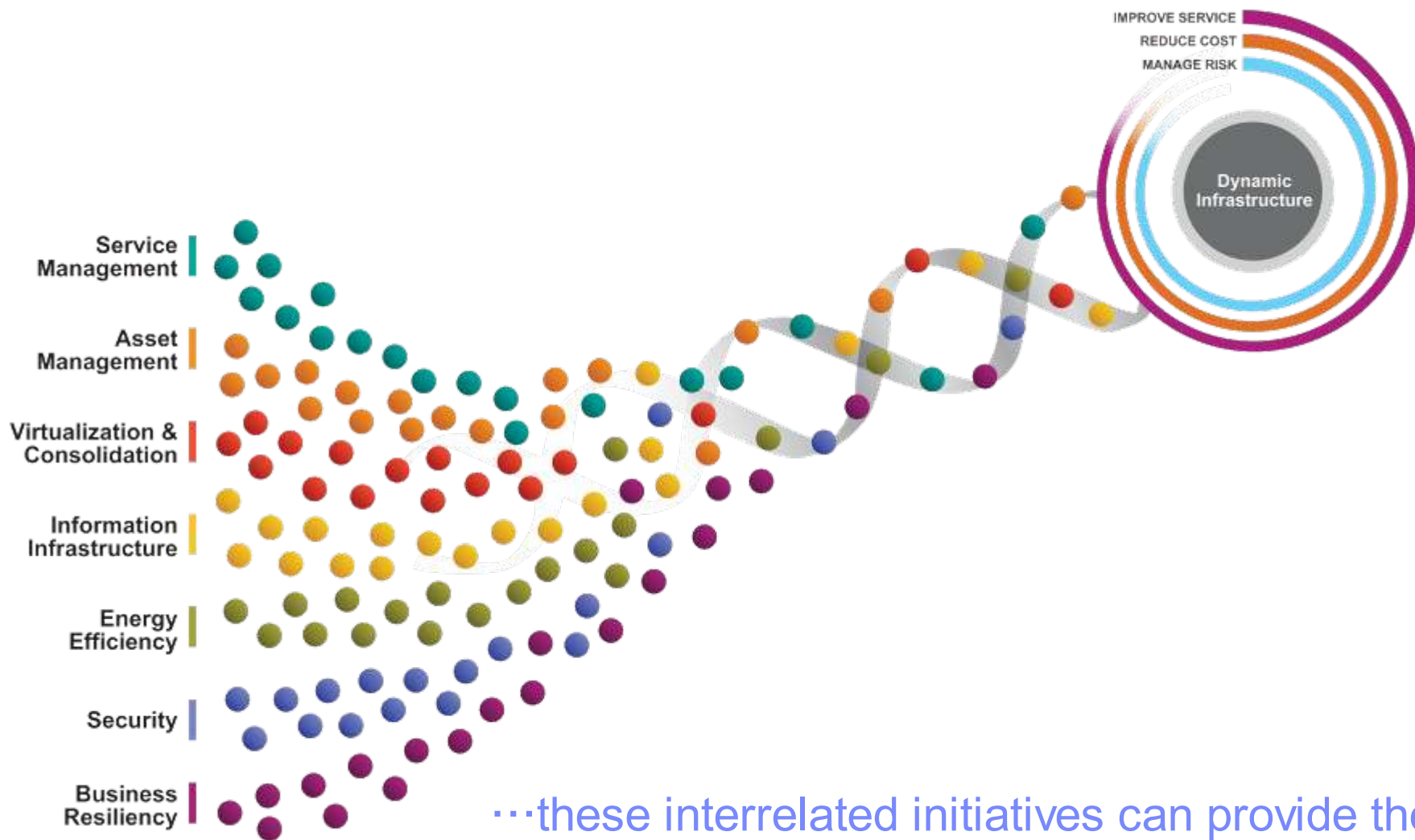
Security – End to end industry customized governance, risk management and compliance solutions.

Information Infrastructure – Helping businesses achieve information compliance, availability, retention, and security objectives.

Architectural Model for Dynamic Infrastructure®



A dynamic infrastructure is a journey...



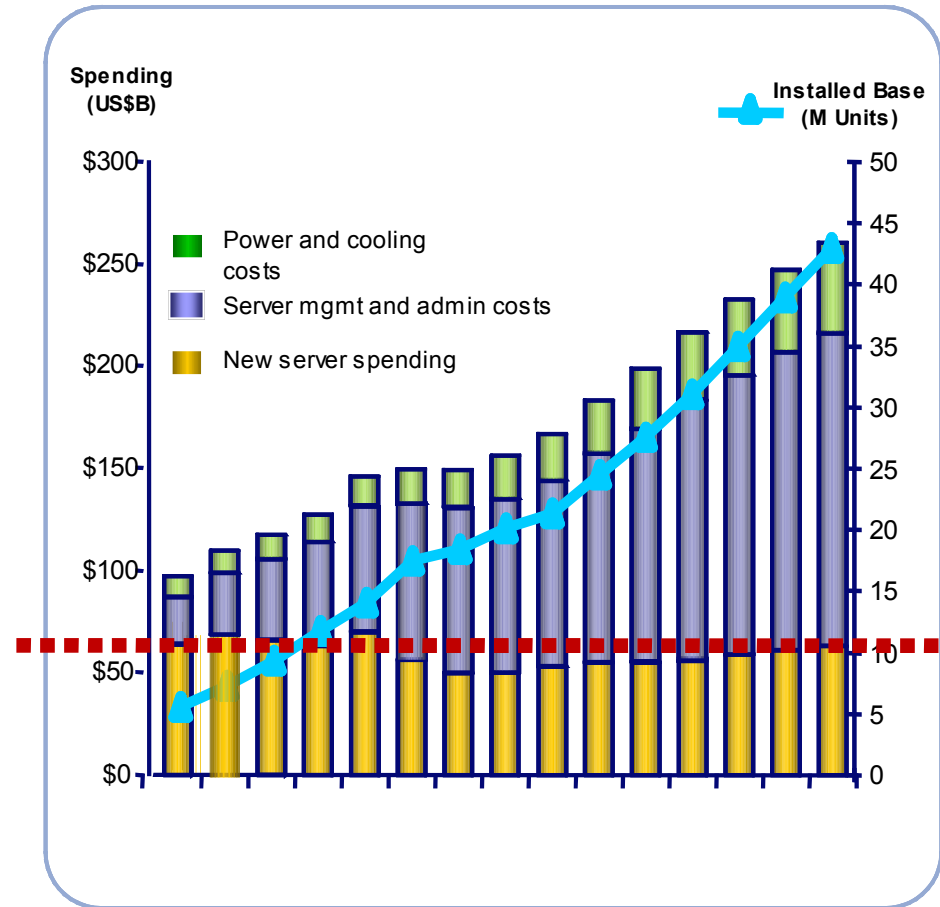
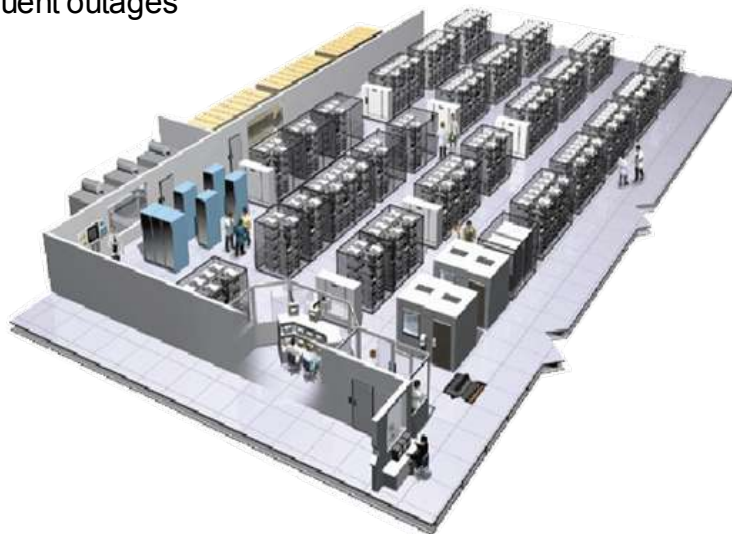
...these interrelated initiatives can provide the DNA needed to thrive in a smarter planet.

The growth of distributed servers in Data Centers

A source of complexity and cost, and a Savings Opportunity

Distributed-systems can proliferate IT costs:

- Cost and complexity (e.g., more physical servers, real network gear)
- Excessive energy usage and heating problems
- Inadequate power and cooling infrastructure
- Data silos and data synchronization
- Linear staffing costs
- Linear per processor software costs
- Frequent outages



LESS IS MORE – Focus on highly efficient use of FEWER servers

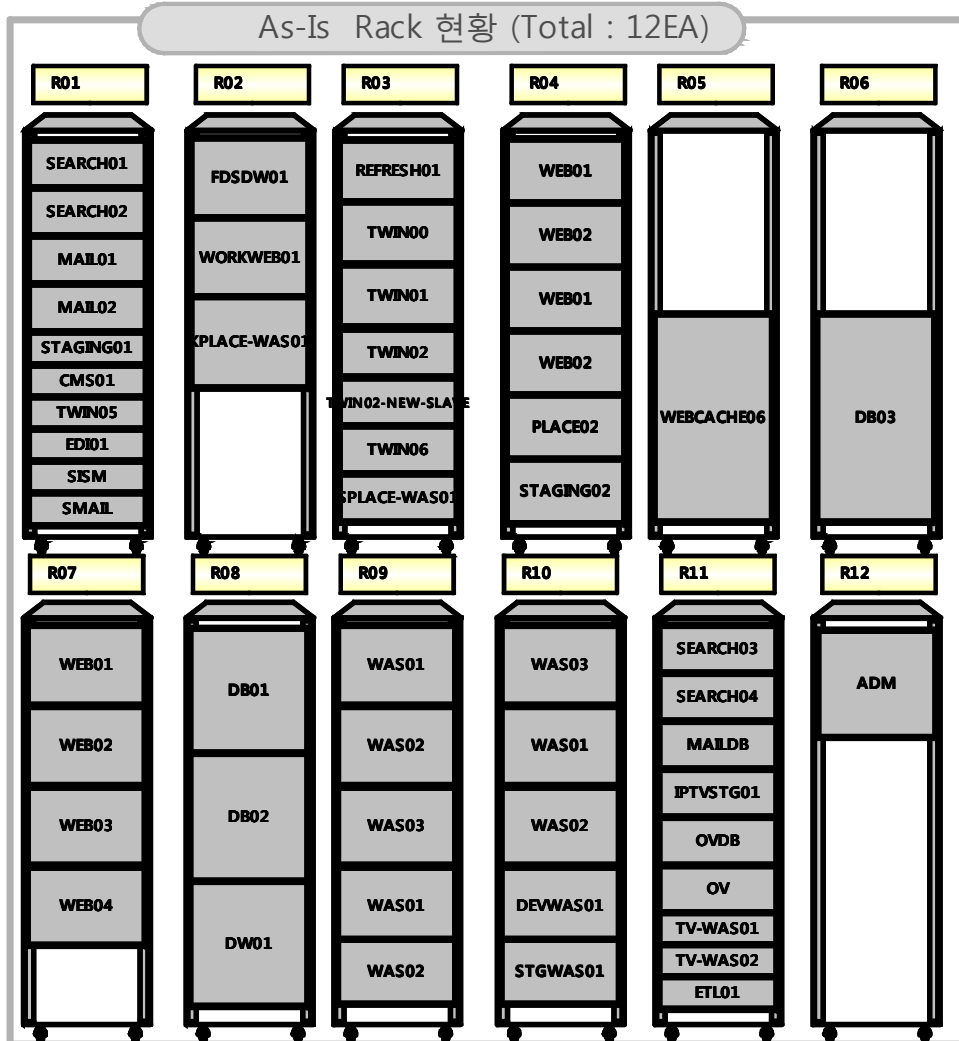
Distributed Computing is Moving towards “2-tier” Architecture for Mixed Workloads

Two-tier Architecture

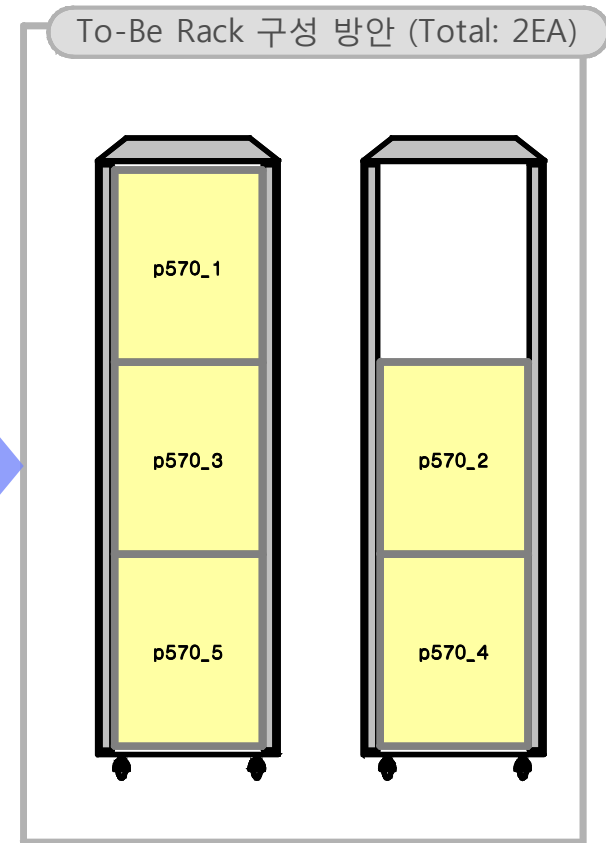


A사 사례: 국내 인터넷 쇼핑몰

전체 60대 서버. 이중 유닉스 서버 54대 중, Sun 서버 80%를 사용하는 인터넷 쇼핑몰

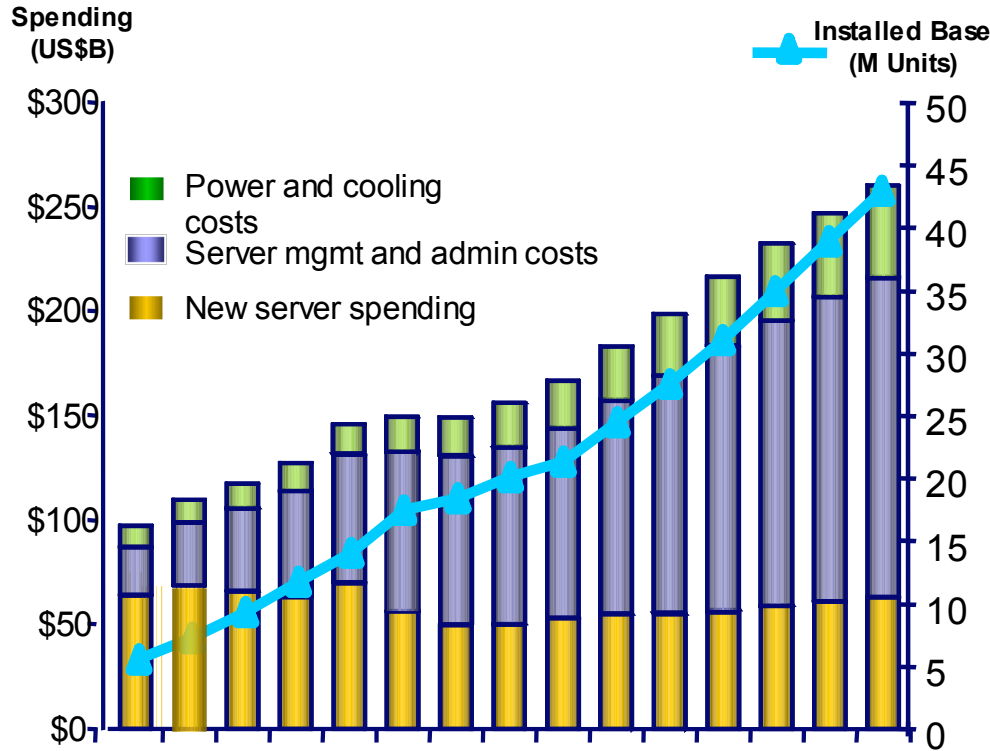


Rack 12대
-> 2대
통합 전/후
상면공간 비교

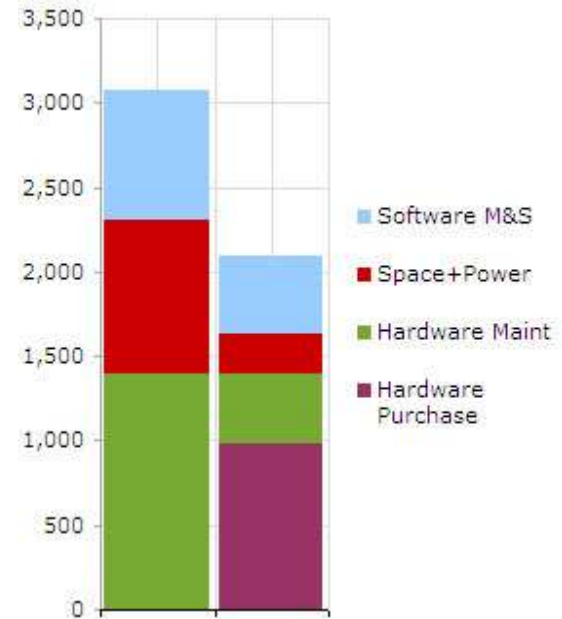


A사 사례: 국내 인터넷 쇼핑몰

전체적인 시스템 성능 54% 향상, 상면비 및 전력비, 소프트웨어 유지보수 비용의 획기적인 절감
 연간 평균 유지보수 비용 약 4억 절감. Payback period 2년 6개월. 5년간 약 10억의 비용절감



비용상의 효과



구분	절감 효과
연간 평균 운영 비용 절감	392,526,000 원
Payback Period	2년 6개월
5년간 전체 비용 절감	982,630,000 원

기초 성능 (RPE2)	19,840	(*)	42,642	215%
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(*): 전체 용량의 70% 기준

A사 사례: 국내 인터넷 쇼핑몰

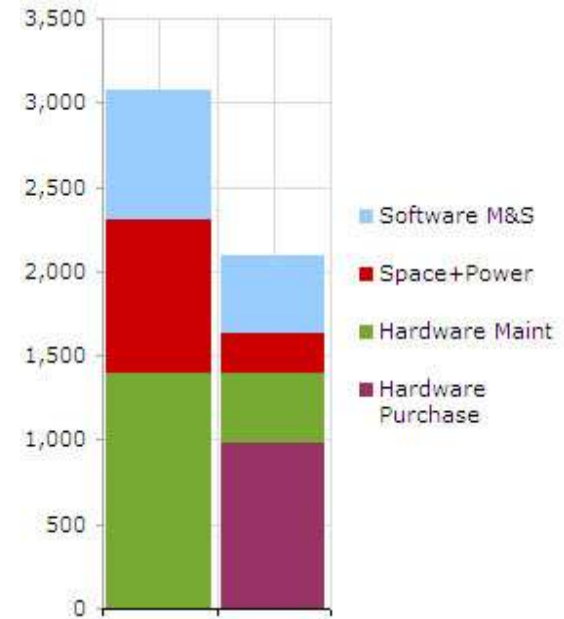
전체적인 시스템 성능 54% 향상, 상면비 및 전력비, 소프트웨어 유지보수 비용의 획기적인 절감
 연간 평균 유지보수 비용 약 4억 절감. Payback period 2년 6개월. 5년간 약 10억의 비용절감

성능상의 효과

비교 항목	As-Is	To-Be	차이	%
전체 서버 수	54	5	-49	-91%
전체 CPU 수	192	56	-136	-71%
전체 Memory (GB)	323	448	125	39%
전체 성능 (RPE2)	57,797	89,260	31,463	54%
실제 사용량 기준 성능 (RPE2)	19,840	62,482 (*)	42,642	215%

(*): 전체 용량의 70% 기준

비용상의 효과



구분	절감 효과
연간 평균 운영 비용 절감	392,526,000 원
Payback Period	2년 6개월
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S사 사례: 국내 보험사

5년에 걸쳐 256대의 UNIX 서버를 23대로 IBM의 가상화 기술을 가지고 통합하여 19%의 TCO 절감 사례

