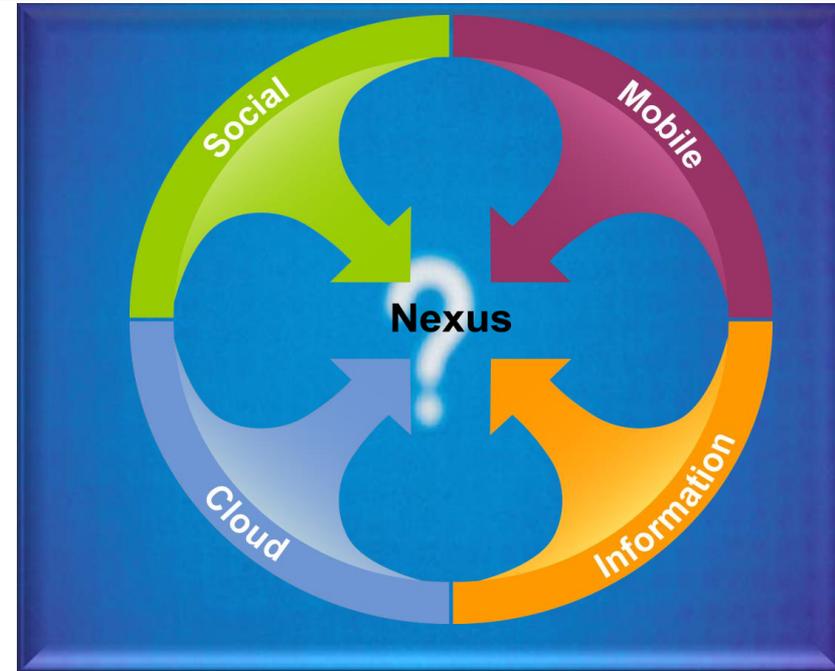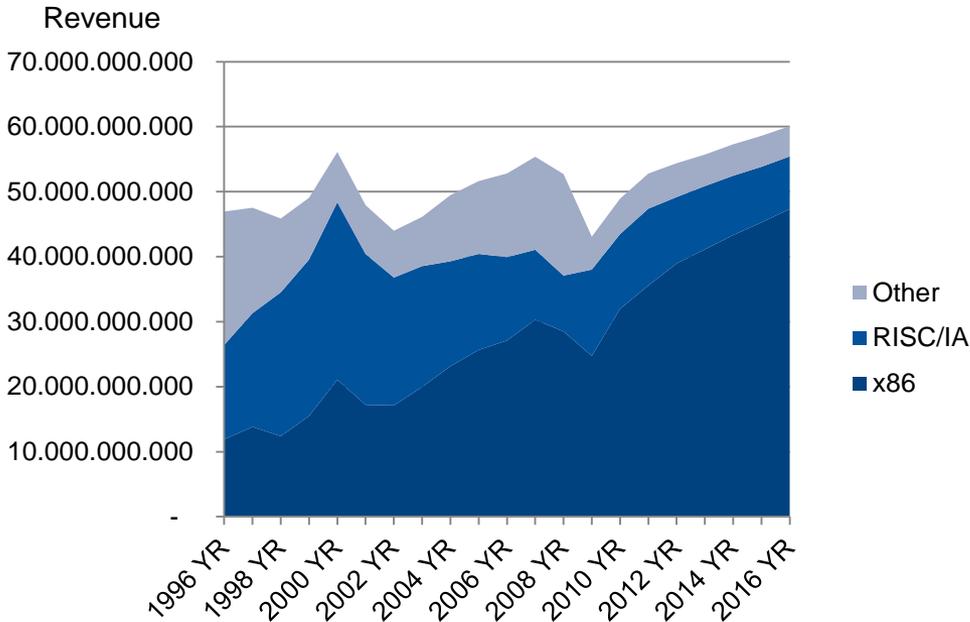# IT Key Metrics Data Infrastructure Measures Mainframe Analysis

Ivan Maglić

Calisto/Gartner Adriatic

This presentation is built based on research and insights developed by Gartner analysts!

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How Can the Mainframe Remain Relevant in Tomorrow's World?

- *In 2016, 79.4% of server revenue will be x86-based*
- *In 2016, 98.8% of server shipments will be x86-based*

Can the mainframe remain a viable platform in the face of these forces?

Gartner's ITKMD: Comprehensive Enterprise Cost & Staffing Database

ITKMD: IT Key Metrics Data

- In 2012, added data from 7,649 public and private enterprises (> 80 countries, 21 industry sectors).

- Collected directly IT leaders via surveys, polls, and benchmarking studies.

- Updated and published annually.

- Multi-leveled: From macro-statistics (such as IT expenditures per employee) to platform-level statistics (such as mainframe cost per MIPS).
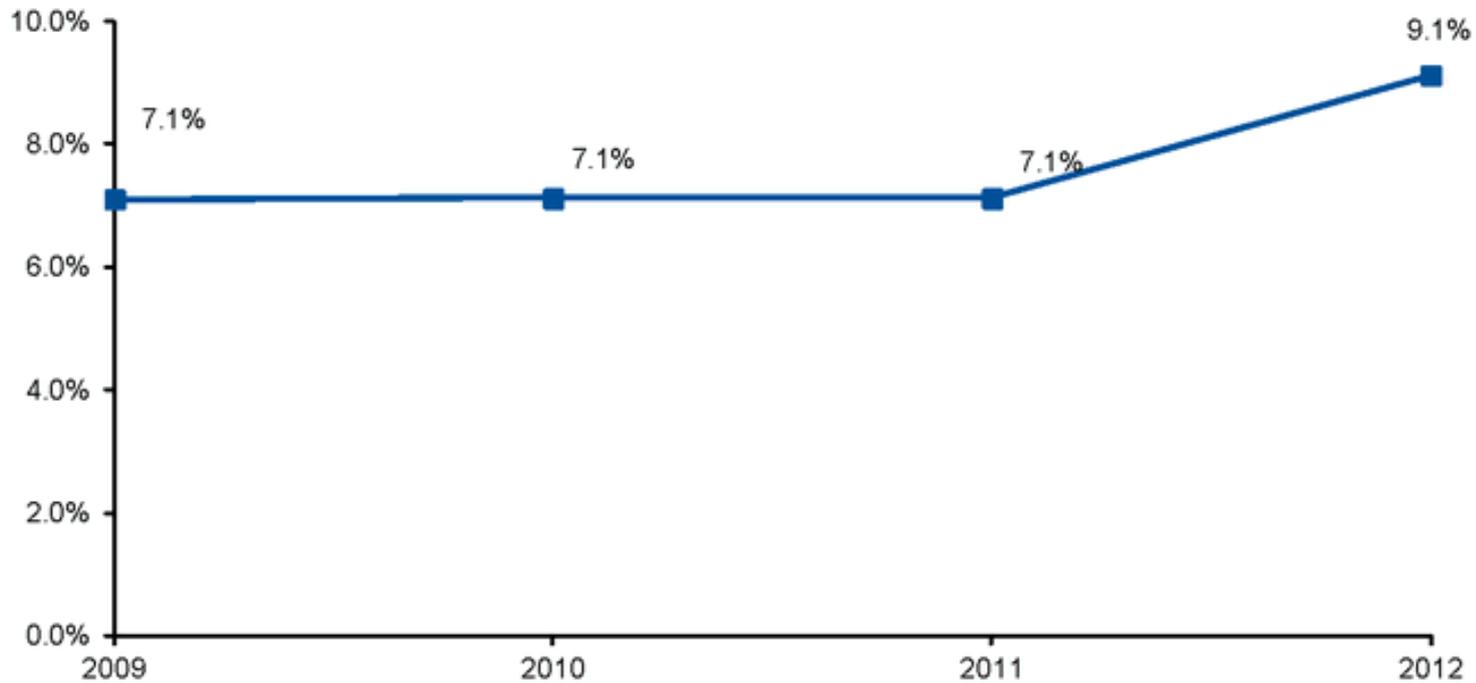
ITKMD

IT Key Metrics Data 2013: Key Infrastructure Measures: Local-area Data Network Analysis: Current Year
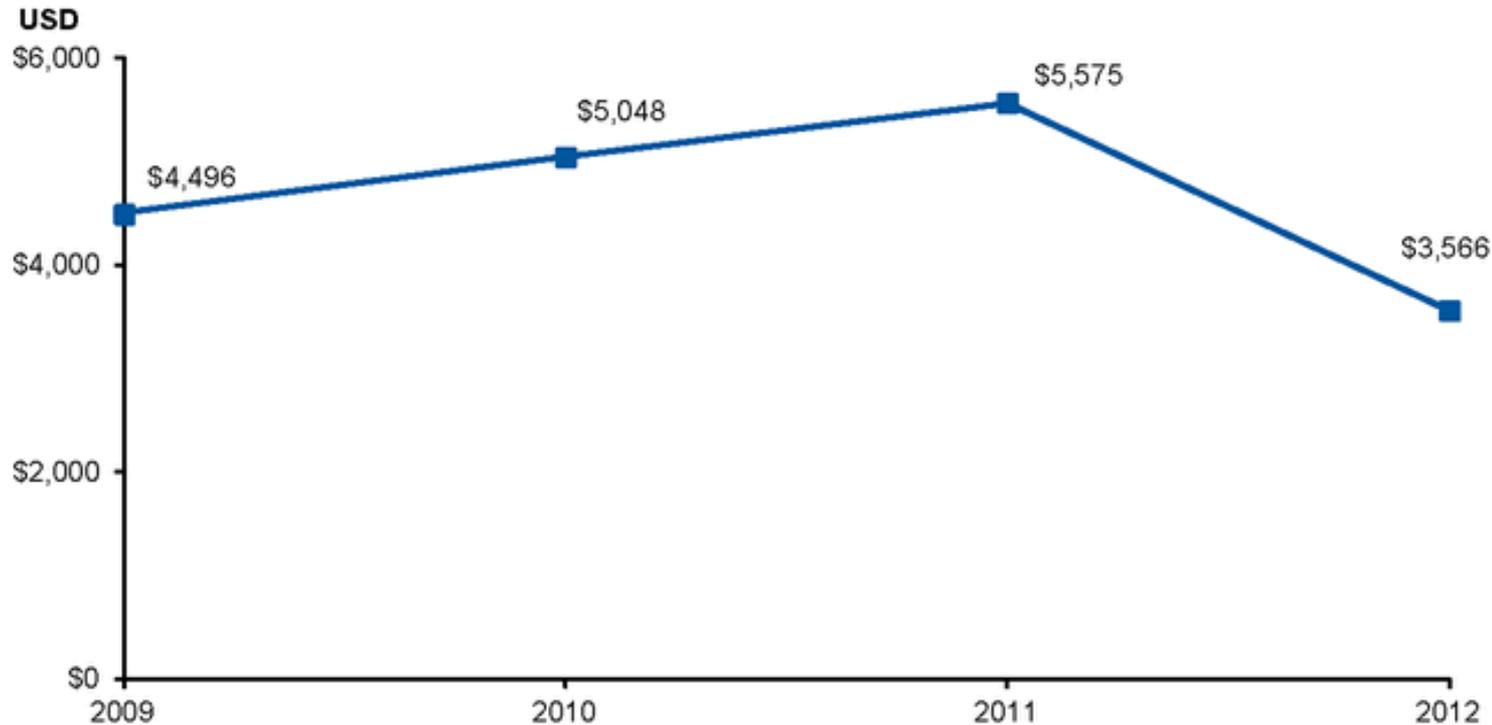
14 December 2012 G00246757

Sample ITKMD Report

Mainframe Cost as a Percent of IT Cost, 2009— 2012
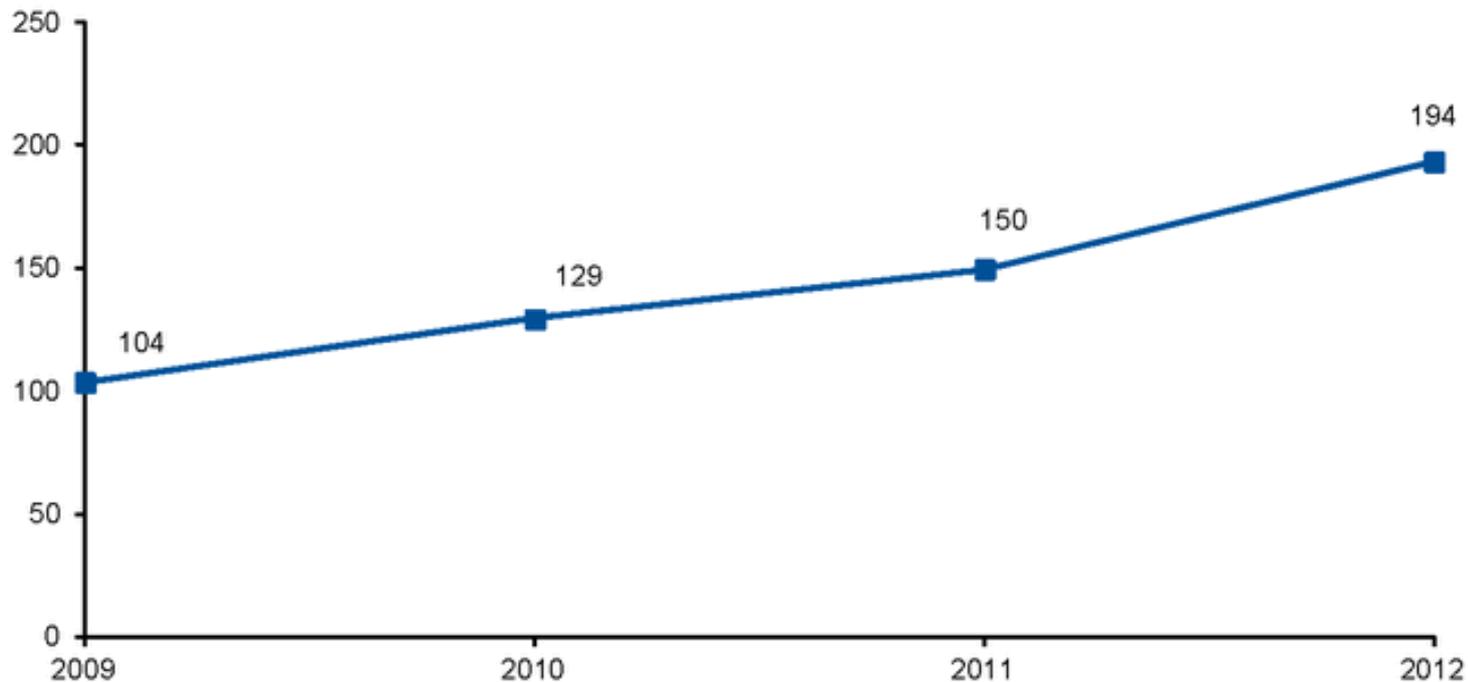

Source: Gartner IT Key Metrics Data (December 2012)

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Annual Mainframe Cost per Installed MIPS, 2009— 2012

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Installed MIPS per Mainframe FTE, 2009— 2012

Source: Gartner IT Key Metrics Data (December 2012)

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Distribution of Mainframe Costs, 2009— 2012
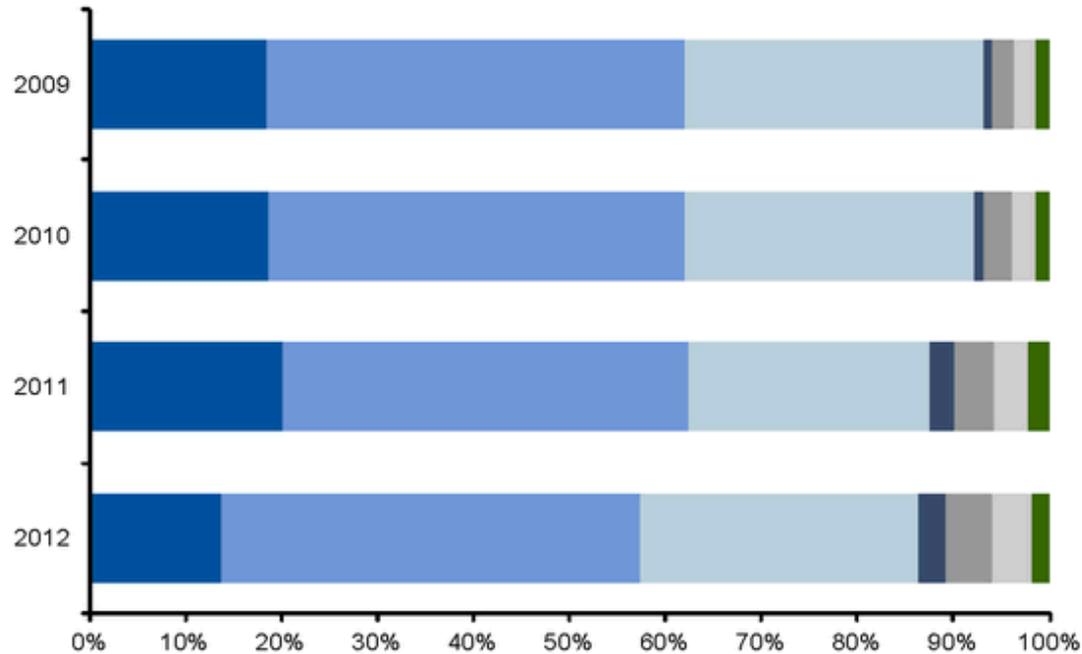
	2012	2011	2010	2009
■Hardware	14%	20%	19%	19%
■Software	44%	42%	43%	44%
▫Personnel	29%	25%	30%	31%
■Connectivity	3%	2%	1%	1%
■Facilities/Occupancy	5%	4%	3%	2%
▫Disaster Recovery	4%	4%	3%	2%
■Unallocated	2%	2%	1%	1%

Source: Gartner IT Key Metrics Data (December 2012)

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Cost Distribution — Unix, Windows, MF

Source: Gartner IT Key Metrics Data, 2010

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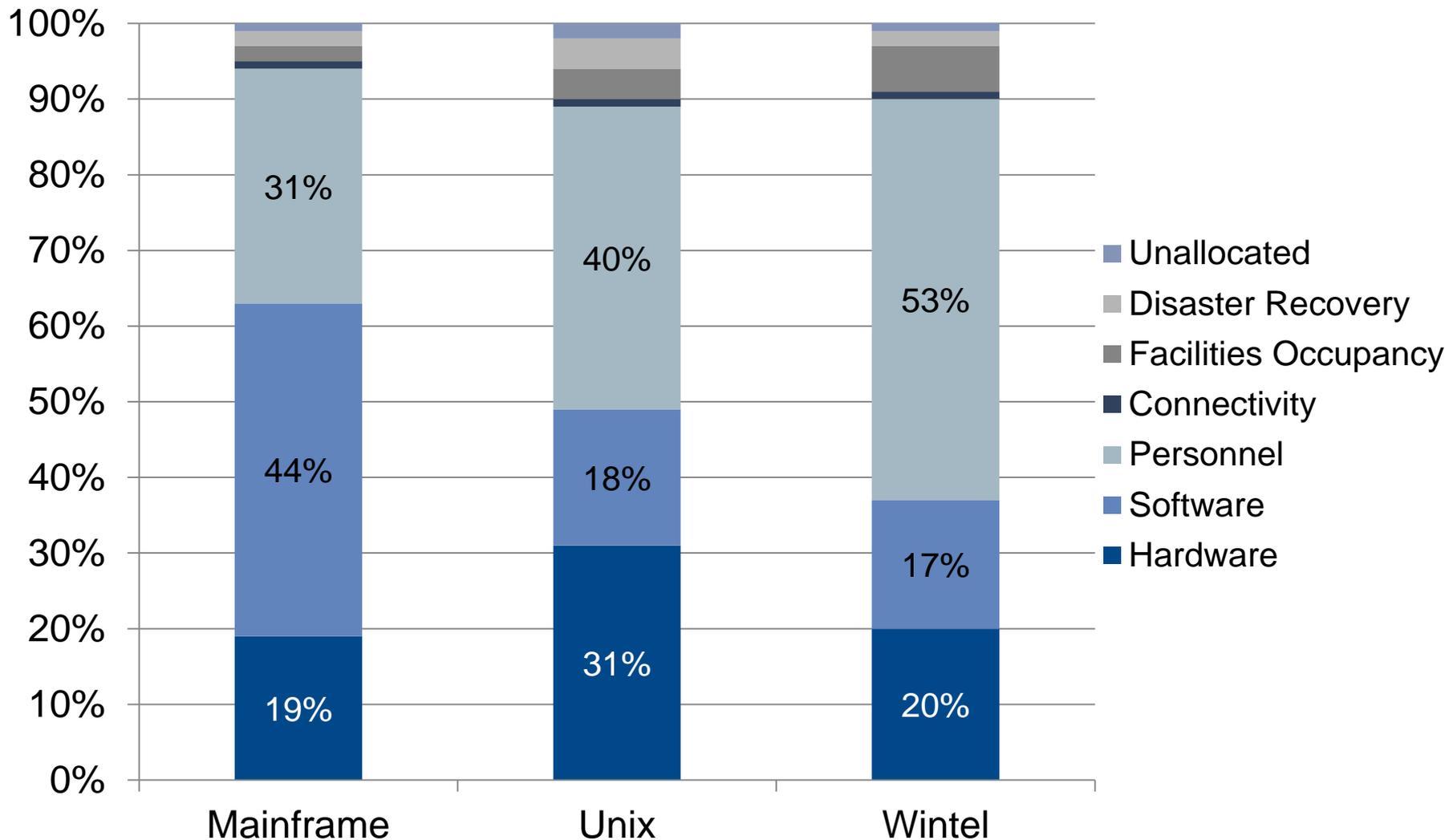
Taking the Pulse of the Mainframe Market

The Positives:

- **Market Size:** 21+ million MIPS worldwide, doubled over the past five years
- **Market Growth:** MIPS per customer continues to grow
- **Market Dynamics:** "A" list of enterprises
- **IBM Commitment:** Sustained investment
- **Drivers:** Specialty engines, particularly IFLs
- **Skills:** Over 1,080 schools in Academic Initiative
- **ISVs:** Over 1,300

The Concerns:

- **Market Size:** Fewer mainframe shops than five years ago
- **Business Case:** TCO cases often don't reflect a consolidated environment
- **Inhibitors:** Small to midsize shops lag on strategic initiatives
- **Market Dynamics:** Competition is stronger
- **Skills:** Perceived as poster child for "skills crisis"

The Challenges:

- **x86:** Default hardware platform
- **Windows and Linux:** The "only" growth OSs
- **Management Perception:** Outdated and complex
- **Hyper-scale Data Center Presence:** MIA
- **Budget:** Centralized costs make it highly visible in a tight spending climate

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Linux on System z Continues to Grow
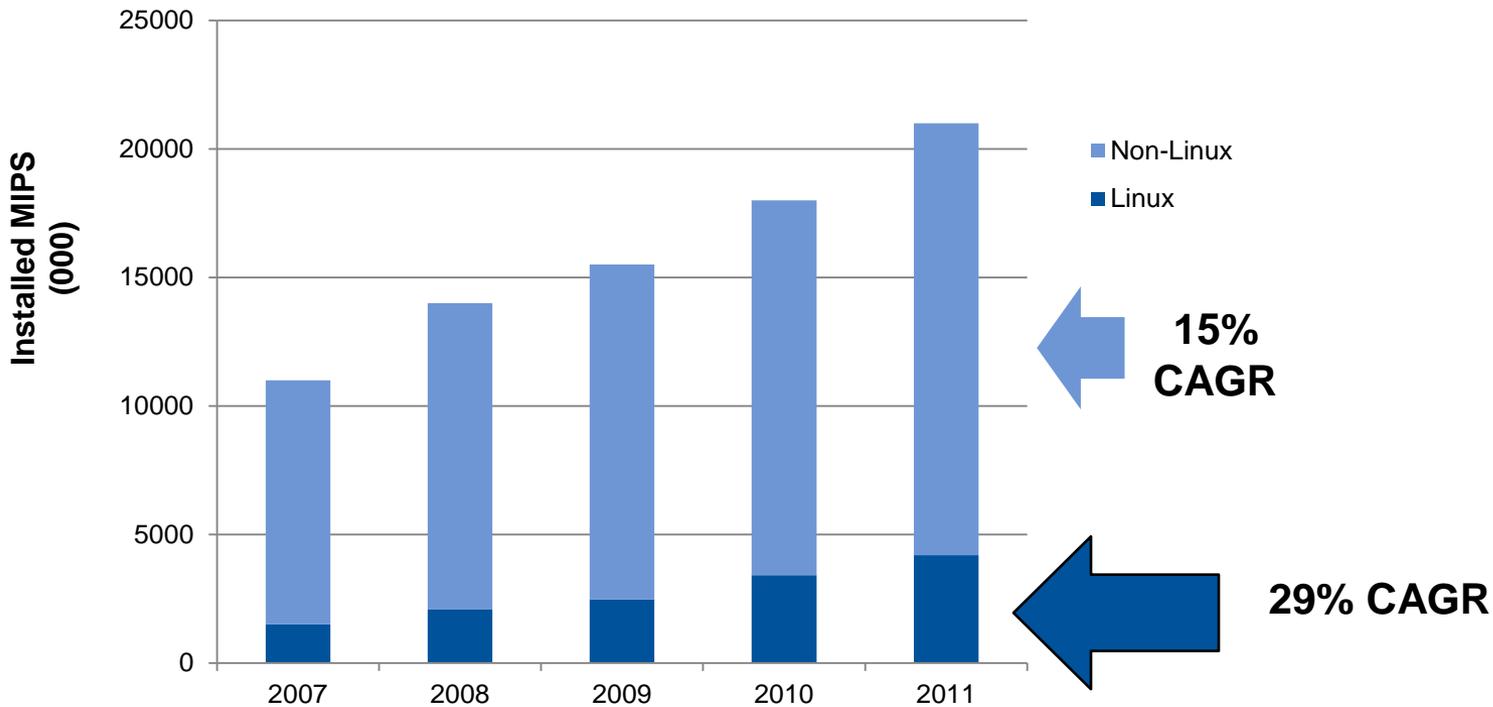
More than 3,000 applications
More than 1,300 customers

Still largely an installed base play
Still largely an "enterprise class" play

Most growth is from existing customers rather than new users of Linux on the mainframe.

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Is the Mainframe Part of Any of the Nexus of Forces Conversation?

The convergence of four powerful forces — cloud, social, mobile, and information — that are transforming the behavior of users and creating new business opportunities.

Private Cloud

- Technically capable
- Evolutionary within the base
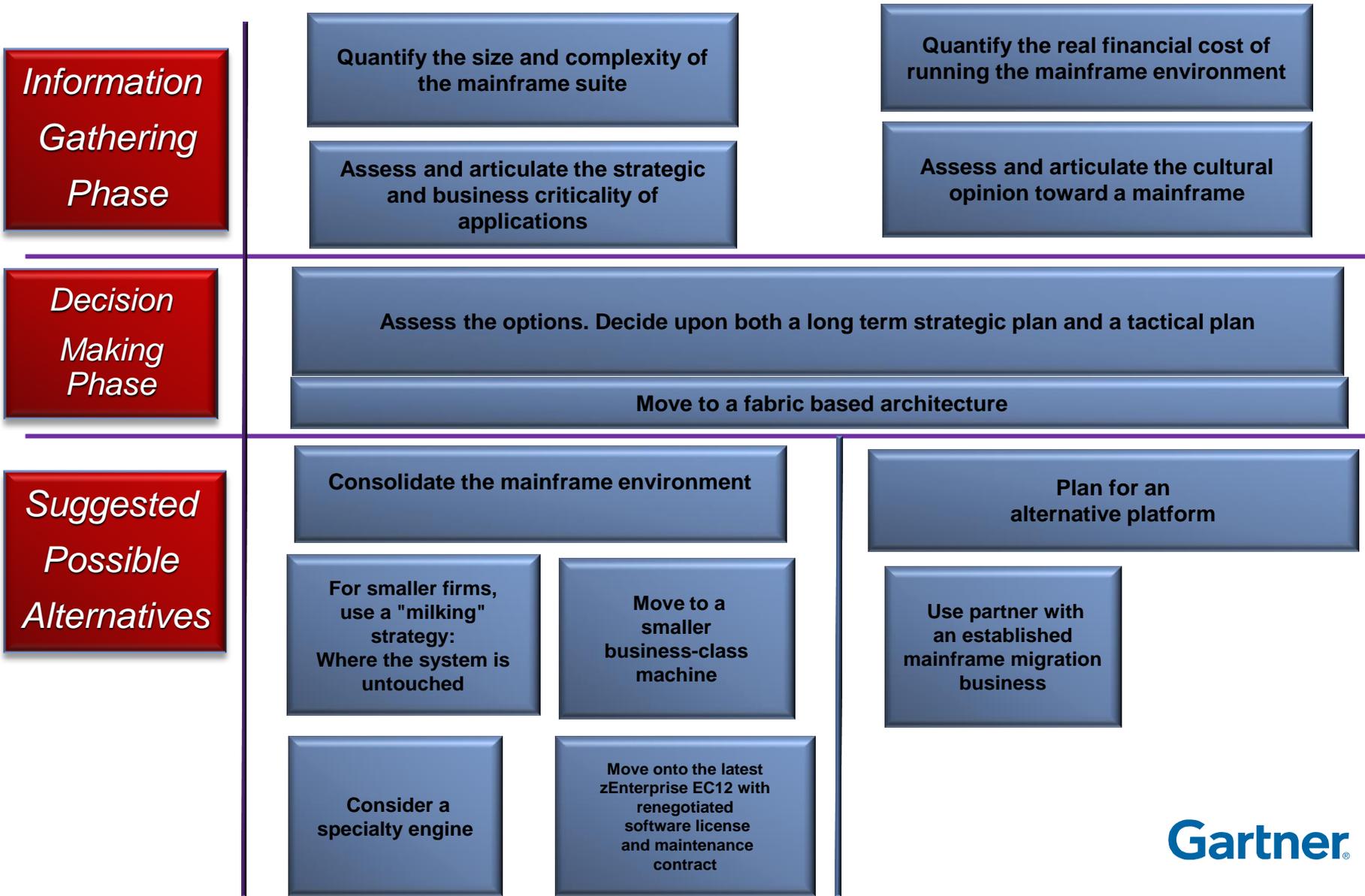- Business practice and pricing challenges

Public Cloud

- Scale up in a scale out world
- Limited references
- Linux would be the primary play

Big Data

- Analyzing z's transactional data (but big data is not just about volume)
- Benefits of proximity and sensitivity
- IDAA front end versus Pure

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Mainframe in Your Data Center: What's the Decision Process?

Information Gathering Phase	Quantify the size and complexity of the mainframe suite / Quantify the real financial cost of running the mainframe environment / Assess and articulate the strategic and business criticality of applications / Assess and articulate the cultural opinion toward a mainframe
Decision Making Phase	Assess the options. Decide upon both a long term strategic plan and a tactical plan / Move to a fabric based architecture
Suggested Possible Alternatives	Consolidate the mainframe environment / Plan for an alternative platform / For smaller firms, use a "milking" strategy: Where the system is untouched / Move to a smaller business-class machine / Use partner with an established mainframe migration business / Consider a specialty engine / Move onto the latest zEnterprise EC12 with renegotiated software license and maintenance contract

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Recommendations

This research note describes the market trends we have seen at Gartner over the last five years regarding the mainframe platform.

We do not simply recommend that clients get off the mainframe regardless of size and technological complexity. There are situations where it is technologically plausible and others with more significant challenges. However, based on what our data indicates, Gartner makes the following predictions regarding the IBM mainframe market over the next five- to seven-year planning horizon:

1. 80% of IBM mainframe shops with less than 1,000 MIPS of processing power will migrate off the platform over the planning horizon.

2. 20% of IBM mainframe shops with 1,000 to 5,000 installed MIPS will migrate off the platform over the planning horizon.

3. 5% of IBM mainframe shops with 5,000 to 20,000 MIPS will attempt to reduce their mainframe footprint over the planning horizon.

Few, if any, large mainframe shops over 20,000 MIPS will leave the platform entirely over the planning horizon.

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Recommendations

✓ Compare your costs with our ITKMD data. If higher, are cost-reductions implied?

✓ Pursue planning information on the pricing of z/OS V2.

✓ Realign contract dates for systems used as disaster recovery systems or capacity-on-demand systems with their remaining lease term or depreciation schedule.

✓ Revisit potential applicability of Linux on System z if it has been more than four years since the last evaluation.

✓ Decide whether IBM's strategic direction for its mainframe with an emphasis on this hybrid approach aligns with your organization's strategic plans for the mainframe — and, if not, what options you should explore.

Recommended Gartner Research

➔ **IBM zEnterprise EC12 Offers Performance, Capacity and New Architectural Structures**
Mike Chuba, John R. Phelps (G00231466)

➔ **IT Key Metrics Data 2013: Key Infrastructure Measures: Mainframe Analysis: Multiyear**
Jamie K. Guevara, Linda Hall, Eric Stegman (G00246747)

➔ **IT Key Metrics Data 2013: Key Infrastructure Measures: Mainframe Analysis: Current Year**
Jamie K. Guevara, Linda Hall, Eric Stegman (G00246746)

➔ **IBM zEnterprise EC12 Offers Performance, Capacity and New Architectural Structures**
Mike Chuba, John R. Phelps (G00231466)

➔ **Changes in the z/OS Release Cycle Will Impact IBM Mainframe Users**
Mike Chuba, John R. Phelps (G00233203)

➔ **Progress Report for IBM's zBX**
Mike Chuba, John R. Phelps (G00231027)

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