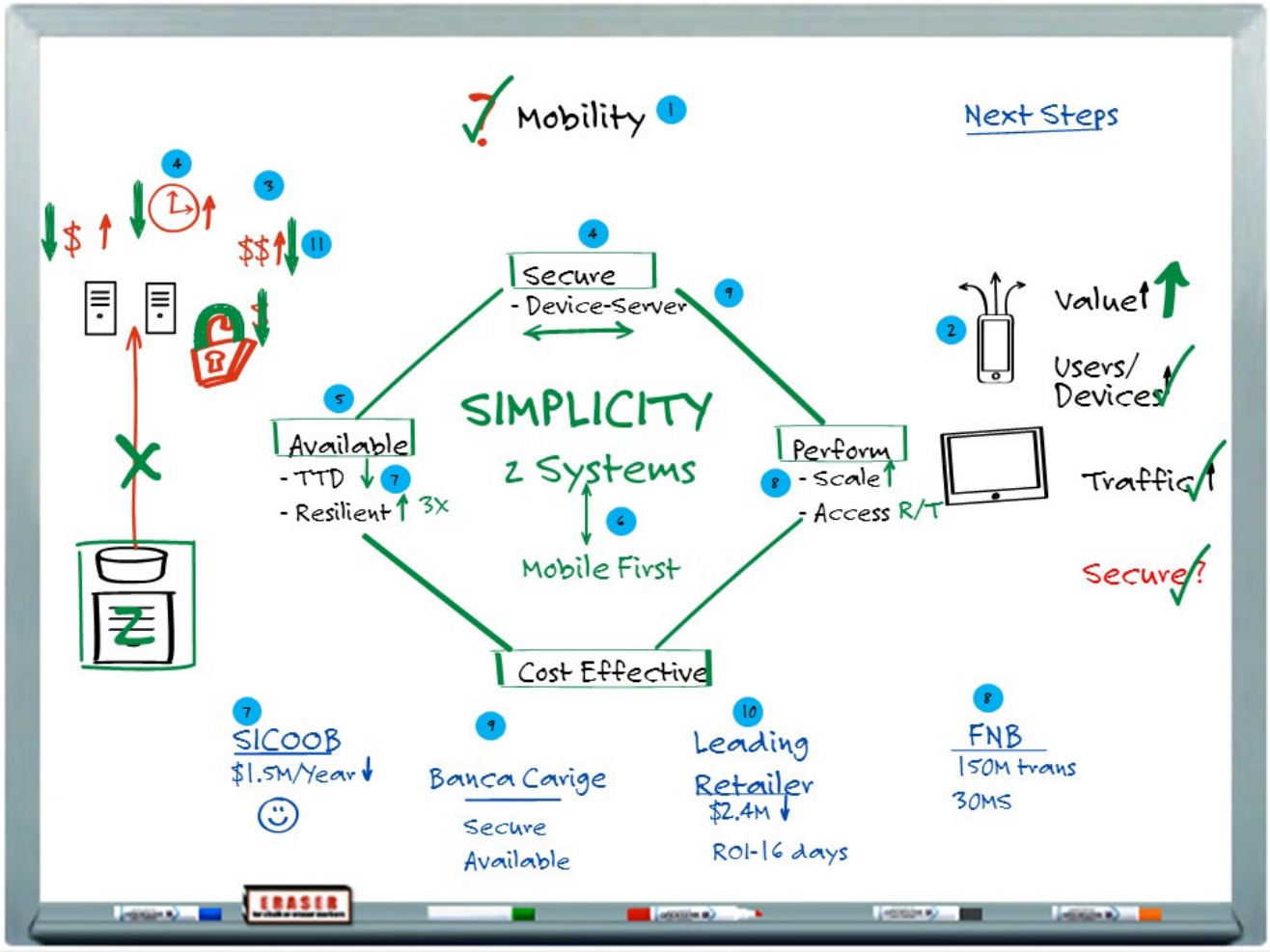
z Systems for Mobility™

Solution Whiteboard Storyboard

Version 2016-12-20 @ 5:29PM

OVERVIEW



Purpose

This whiteboard is intended to help sellers better understand and be able to articulate to clients at a high level how IBM's z Systems and IBM's related software solutions can provide a robust, secure, and efficient foundation/platform for enabling new mobile applications to take advantage of z Systems-based data or extend existing z Systems-based applications with mobile capabilities.

The whiteboard is also intended to help educate IBM Systems Reps, and client reps regarding how z Systems provides a more effective alternative for mobile initiatives than implementing Mobile on a distributed or x86 alternatives. Some customers have made a decision to implement mobile in a cloud environment. This is very viable using hybrid cloud for the Systems of Engagement (SOE) and z Systems as the Systems of Record (SOR). This model normally exploits API Economy. This whiteboard assumes that both the SOE and SOR are on z Systems.

Target Customer

The target customer audience for this discussion is the IT manager, LOB manager, or executive/management with budget responsibility for mobile enablement.

Goal of Whiteboard Discussion

The end goal of the whiteboard discussion is to create enough interest to secure agreement from the audience to sponsor a next step, which could be a mobility-oriented workshop or proof-of-concept (POC).

Pre-Discussion Preparation

Prior to your meeting, identify customer stories or examples as well as mobile-related trends specific to the industry, region, or application areas that will resonate with the audience. To find updated information, check the Whiteboard Media Library:

http://w3.tap.ibm.com/medialibrary/media_set_manage?id=32324

Steps for Whiteboard Discussion

Discussion steps in this whiteboard are:

Step 1 – Setting the Stage

Step 2 – Mobile Challenges

Step 3 – Approaches to Mobile

Step 4 – The Operational Challenges

Step 5 – The Operational Challenges (continued)

Step 6 – z Systems for Mobile

Step 7 – Delivering Availability and Resiliency

Step 8 – Delivering Performance and Scalability

Step 9 - Securing Mobile – From Device to the Server

Step 10 – Cost Effectiveness

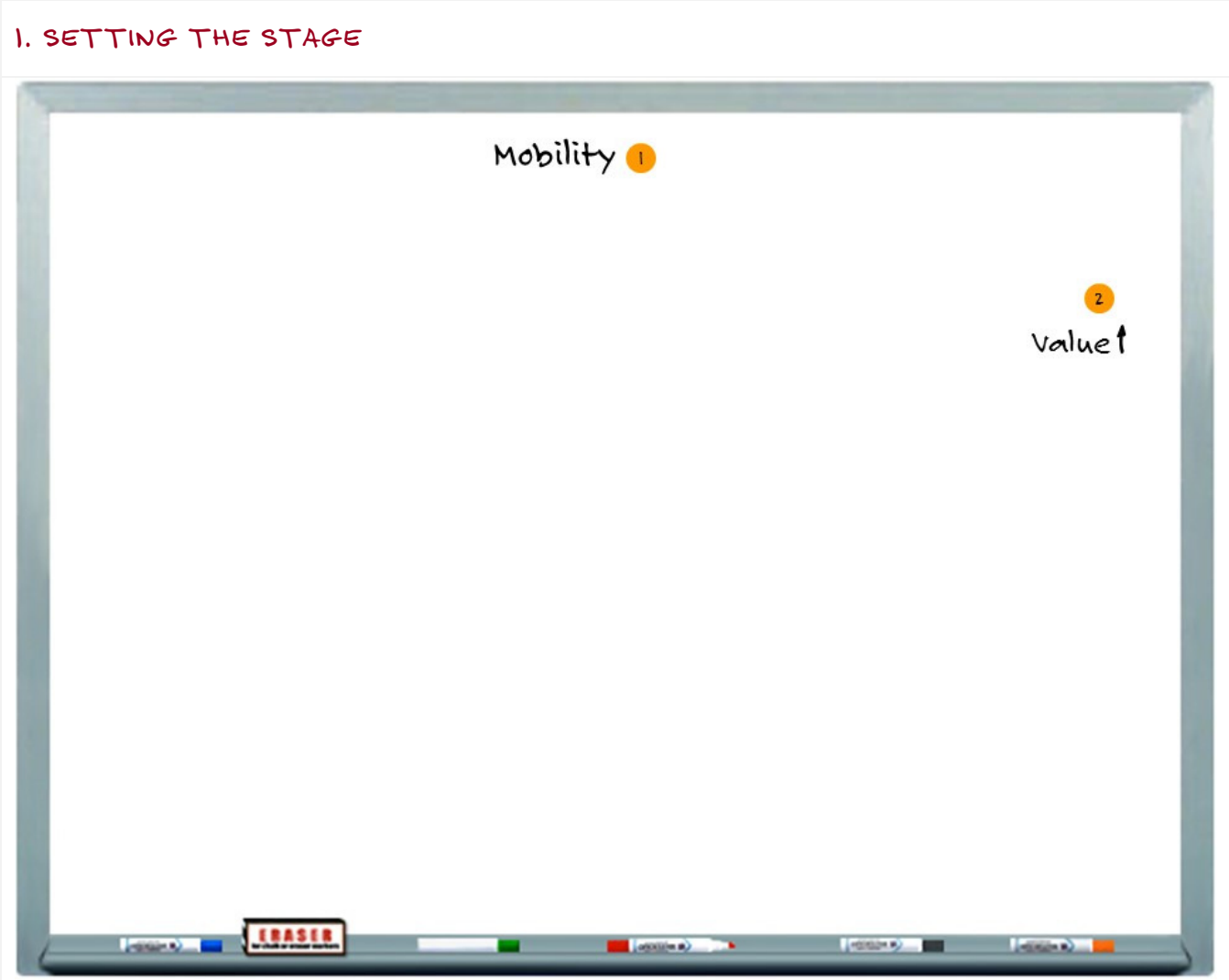
Step 11 – Recap and Next Steps

Legend for Graphics

Color in this whiteboard is used to represent the following:

- **Black** - Either FACTS or subjects that frame the discussion
- **Blue** - Topics we want to emphasize - typically action-oriented, e.g., someone is going to do something (outlining what we will discuss, for example) or has done something (customer story – **which you can add to this whiteboard**)
- **Red** – Challenges or issues the audience faces with mobile applications
- **Green** - Action or activity that either overcomes an issue or provides a positive outcome

Discussion Steps in this whiteboard are:



Thank you very much for taking the time to meet with me to talk about mobility and what you and your organization are doing to address the increasing demand for mobile-enabled applications and services. **[Step 1] (WRITE: Mobility)**

[Step 2] (WRITE: Value – DRAW: UP arrow) There are great reasons for the increase in demand for mobile-enabled applications – and I'm sure you hear many from within your organization – mobile applications can provide you with significant value – whether it is "internally" by lowering operating costs through improved internal efficiency or "externally" by creating new revenue opportunities, competitive advantage, or improved customer experience. For example, a recent report in the U.K. indicated the number one reason people switched their bank was dissatisfaction with their old bank's mobile applications.

But mobile applications also bring with them a number of challenges. For example:

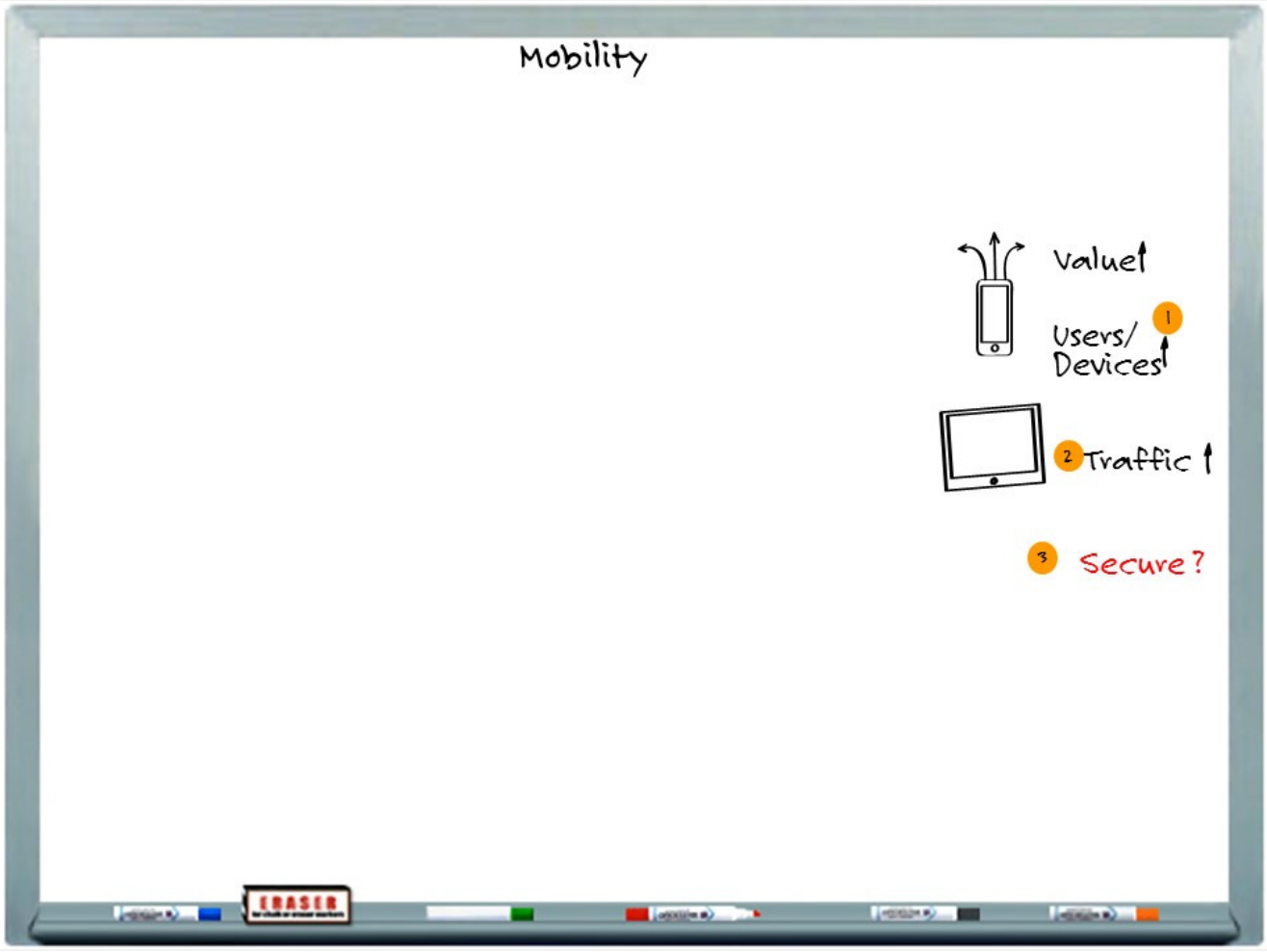
QUESTIONS TO ASK:

Is mobile a component of your IT strategy?

How important is mobile?

What are you doing today?

2. MOBILE CHALLENGES



[Step 1] (WRITE: Users/Devices – DRAW: Devices - Up arrows) For example, think about the increase in the number of users who want mobile access and their impatience with poorly implemented mobile applications and services. For example, in a recent study, 80% of respondents said they would abandon their mobile video service if it failed to start up in 30 seconds. And then there is the diversity of devices – IOS/Android/Windows/Blackberry – and when you consider the number of versions of operating systems, and displays, you may end up having to support hundreds of different device types.

[Step 2] (WRITE: Traffic – DRAW: Up arrow) With the billions of "smart devices" that are being used, as more users take advantage of mobile-enabled applications, studies indicate that you can expect 10-50% growth in the number of transactions as you add mobile channels. Also, it is predicted that by the end of 2015, there will be 20 times more mobile content.

[Step 3] (WRITE: Secure?) A not-so-positive trend and one of the biggest concerns that most organizations have is that mobile applications present an ever-increasing potential for security breaches, which can cost organizations in terms of real dollars, reputation, and image. The exposures with mobile devices are dramatically

different from laptops – people take mobile devices EVERYWHERE and losing a phone is much more likely to occur than losing a computer.

QUESTIONS TO ASK:

Are there any other factors or trends that you consider important?

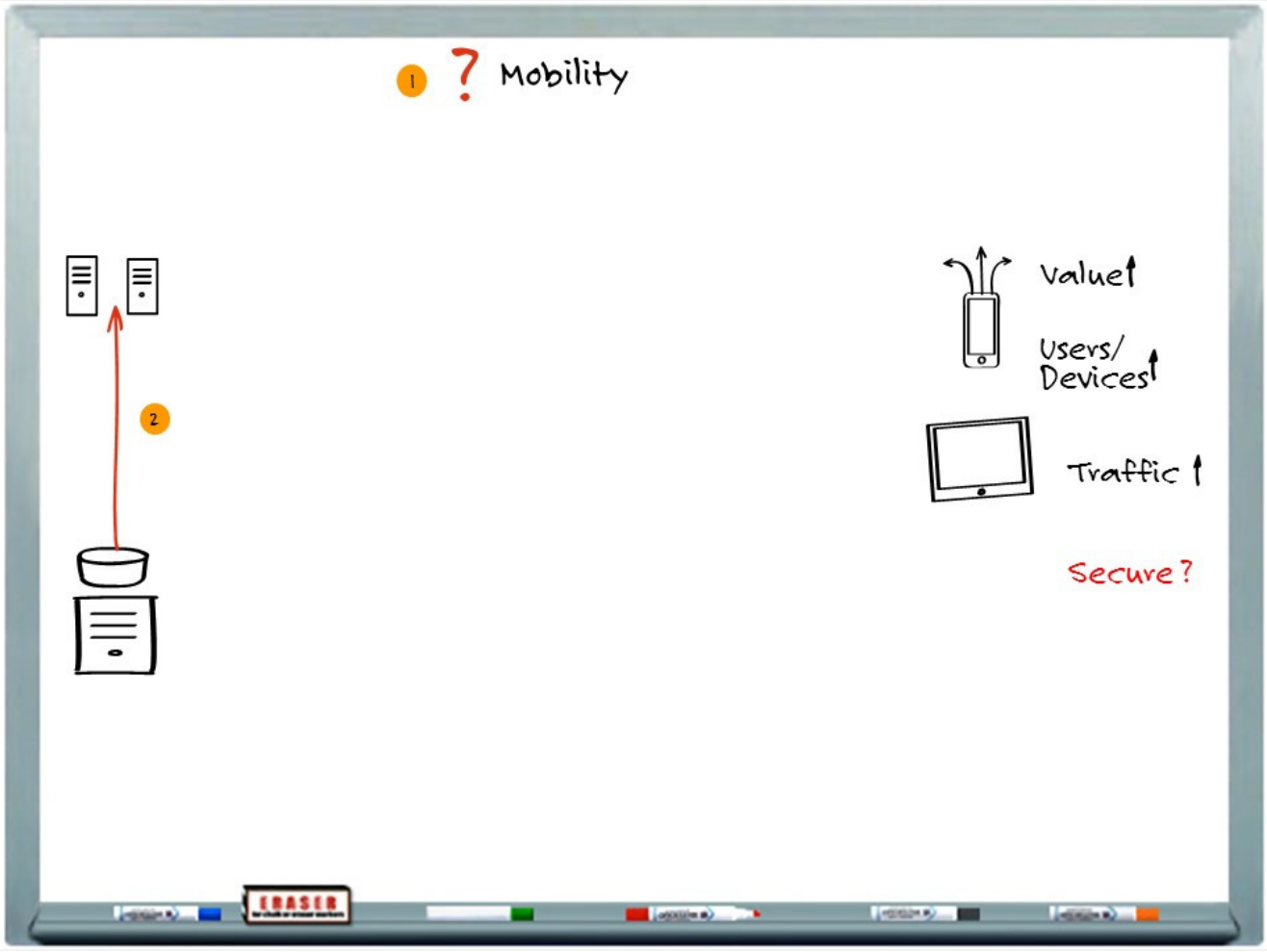
Which factors or trends are you concerned about the most?

What are your thoughts about security and having mobile devices increasingly access data and applications?

NOTE TO PRESENTER:

Get the customer to talk about their concerns regarding Mobility and why they might be considering distributed or x86. You should focus your discussion around those areas that are of most concern to the customer.

3. APPROACHES TO MOBILE



[Step 1] (WRITE:"?") As you look to move forward with mobility – and you will – the question we see other IT (or business) leaders like you struggle with is: What is the best and most effective approach for developing and delivering new mobile applications or for extending existing applications to take advantage of mobile devices?

[Step 2] (DRAW: Server and data store – servers - DRAW: Up arrow) One approach that we have seen, especially as an initial deployment strategy for mobile applications, is to base the applications on distributed or x86 technologies and transfer and replicate data from the System of Record that resides on their mainframe. Another approach is to take complete advantage of your existing mainframe infrastructure and the applications, data, and transactions that reside there – your System of Record – and deliver new mobile-enabled Systems of Engagement that are based on that platform.

The question for you and your team really comes down to this: How do you move ahead with mobility and at the same time meet the operating demands of the organization? For example:

QUESTION TO ASK:

Do the mobile-enabled apps you have in place today require access to System of Record data?

Are you replicating that data today?

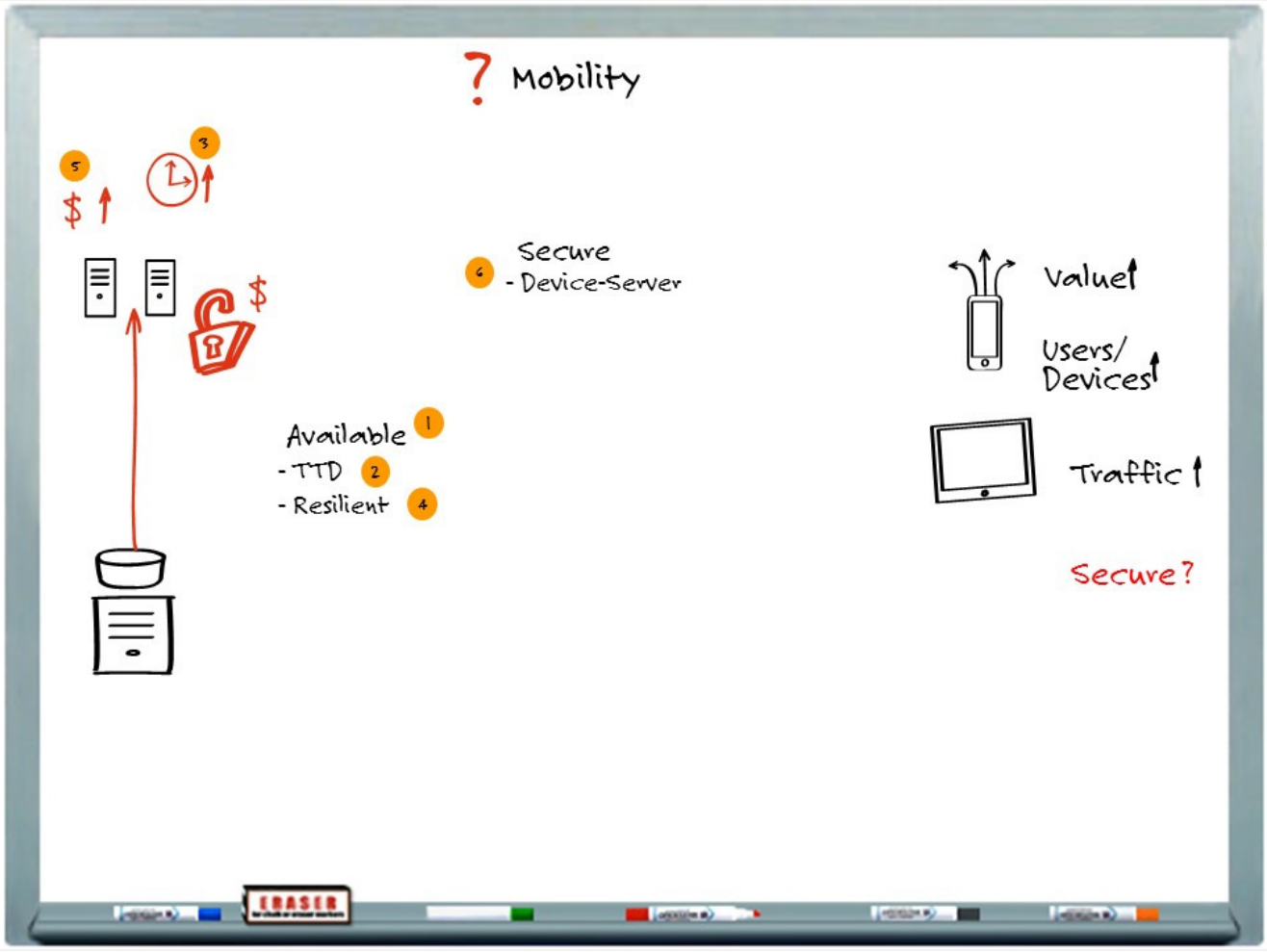
How much time are you spending in this activity? Have you dedicated resources to this activity?

NOTE TO PRESENTER

System of Record (SOR). An SOR is an IT system that maintains the integrity of core business data and processes. SOR provides a traceable source of the original data. For information subject to change, such as a bank account balance, the SOR provides the most current information. Every SOR shares the following characteristics: It provides the most complete, most accurate, and most timely data; it is nearest to the point of operational entry; and it can be used to feed other systems.

Systems of Engagement. Systems of engagement are a category of IT applications that support communication and collaboration with customers. Most systems of engagement depend on transactions, processes, and content managed by back-office systems.

4. THE OPERATIONAL CHALLENGES



[Step 1] (WRITE: Available) Availability. Availability can mean a number of things. If mobile-enabled apps can drive incremental revenue, and if they can create competitive advantage or keep customers, then making these apps available in a timely manner is important – in other words, improving Time to Development, Delivery, and Deployment **[Step 2] (TTD) (WRITE: TTD).** Depending on your development staff, tools, and environment, this could be a complex, time-consuming, and expensive effort, especially if you have to develop and maintain code or applications to transfer, replicate, and keep data in synch between your core systems and an x86 or distributed environment. **[Step 3] [DRAW: Clock - Up arrow].**

Availability can also mean that once up and running, your mobile service must also be resilient and ultra-reliable. **[Step 4] (WRITE: Resilient)** Can it run 24x7? Will it enable you to recover quickly and completely from "issues"? Will it require adding infrastructure to meet requirements? **[Step 5] (WRITE: $$ - DRAW: Up arrow)**

[Step 6] (WRITE: Secure – Device-Server) Mobile-enabled applications can put more pressure on your security infrastructure. You have to deal with potential exposures from users' devices to the network, to the application, and to the data and the server infrastructure. So, what type of investment will be required to ensure you have a

trusted and secure environment, especially if you need to transfer data from one environment to another?
(DRAW: Open Lock - WRITE: “$”)

QUESTIONS TO ASK:

Does this sound like some of the issues you have?
Have you established priorities in dealing with these or other challenges?

5. THE OPERATIONAL CHALLENGES

As we discussed earlier, mobile users want and often demand the right level of performance and throughput. With mobile applications, users want to see the impact of their transactions or activity instantly, which may mean they try to see them multiple times. **[Step 1] (WRITE: Perform)**

As the number of users, the number of transactions, the amount of data, and the number of applications increase, how do you meet performance and scalability requirements? **[Step 2] (WRITE: Scale)** If you have a distributed or x86 environment, do you invest now in anticipation of growth? Or, do you wait until users complain? How will the environment perform as more and more users **access** the system at peak times?

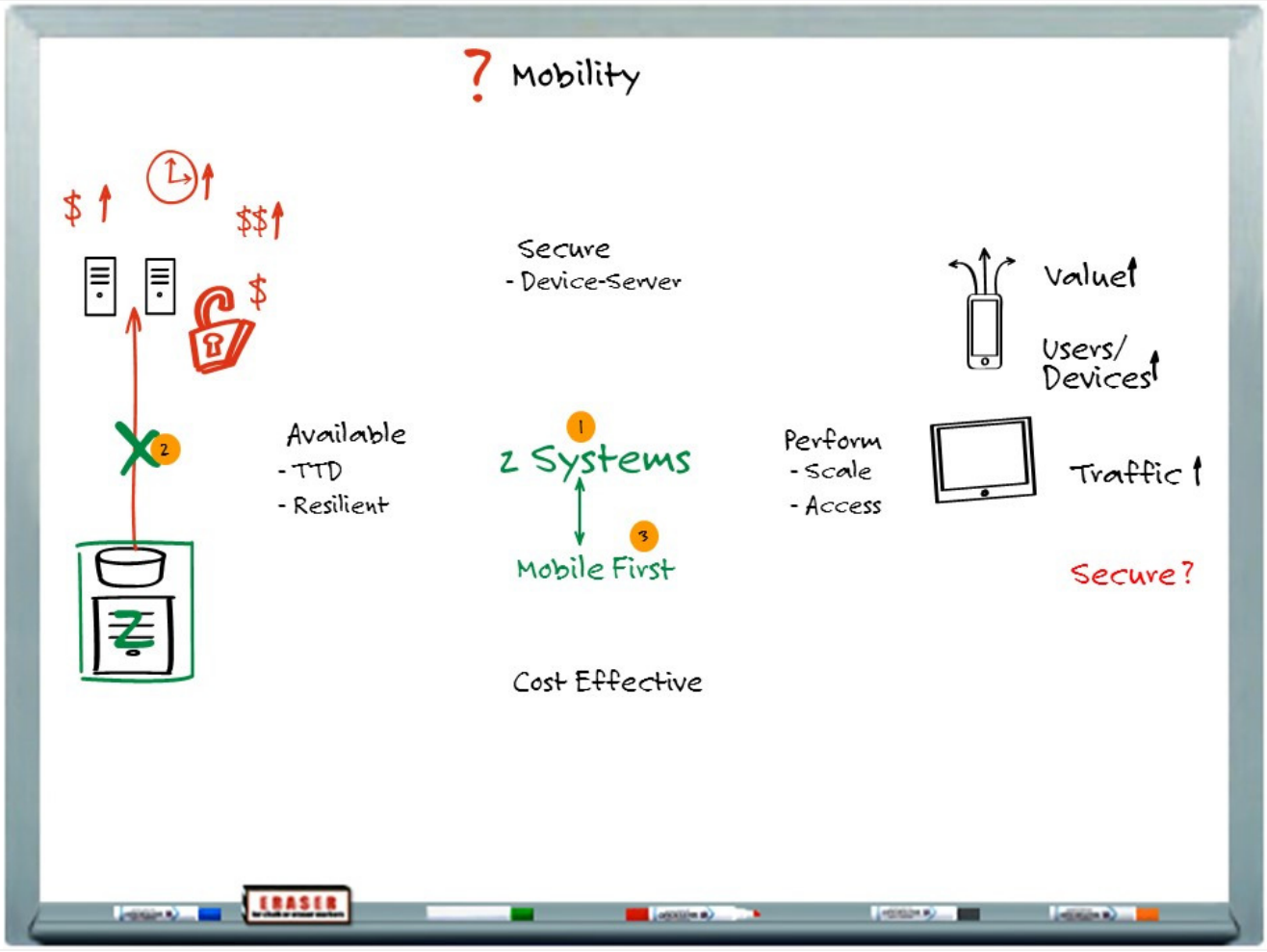
[Step 3] (WRITE: Access) For example, recently, all three major banks in the U.K. faced system outages as user demands exceeded the capacity of their systems. What will it cost you to ensure that this doesn't happen to you? **(WRITE: $$ - DRAW: Up arrow)**

[Step 4] (WRITE: Cost Effective) Finally, it always comes down to a question of **c**ost. Does your approach provide the most cost-effective infrastructure for the development, deployment, and management of mobile-enabled applications? Also, will it provide the right level of return to the organization? Will it mean more investment today, or additional costs as the number of users, the amount of data, and the numbers of apps increase?

QUESTIONS TO ASK:

Does this sound like some of the issues you have?
Have you established priorities in dealing with these or other challenges?

6. Z SYSTEMS FOR MOBILE



As we discussed, some organizations take an initial approach but find that approach fails to support BOTH their mobility AND their operational requirement. There is another approach to mobility that CAN enable you to meet both sets of requirements. That approach is taking advantage of z Systems, along with the full range of development, deployment, and management solutions that IBM has introduced for z Systems-enabled mobility.
[Step 1] **(WRITE: z Systems - DRAW: Box around server – WRITE: "Z")**

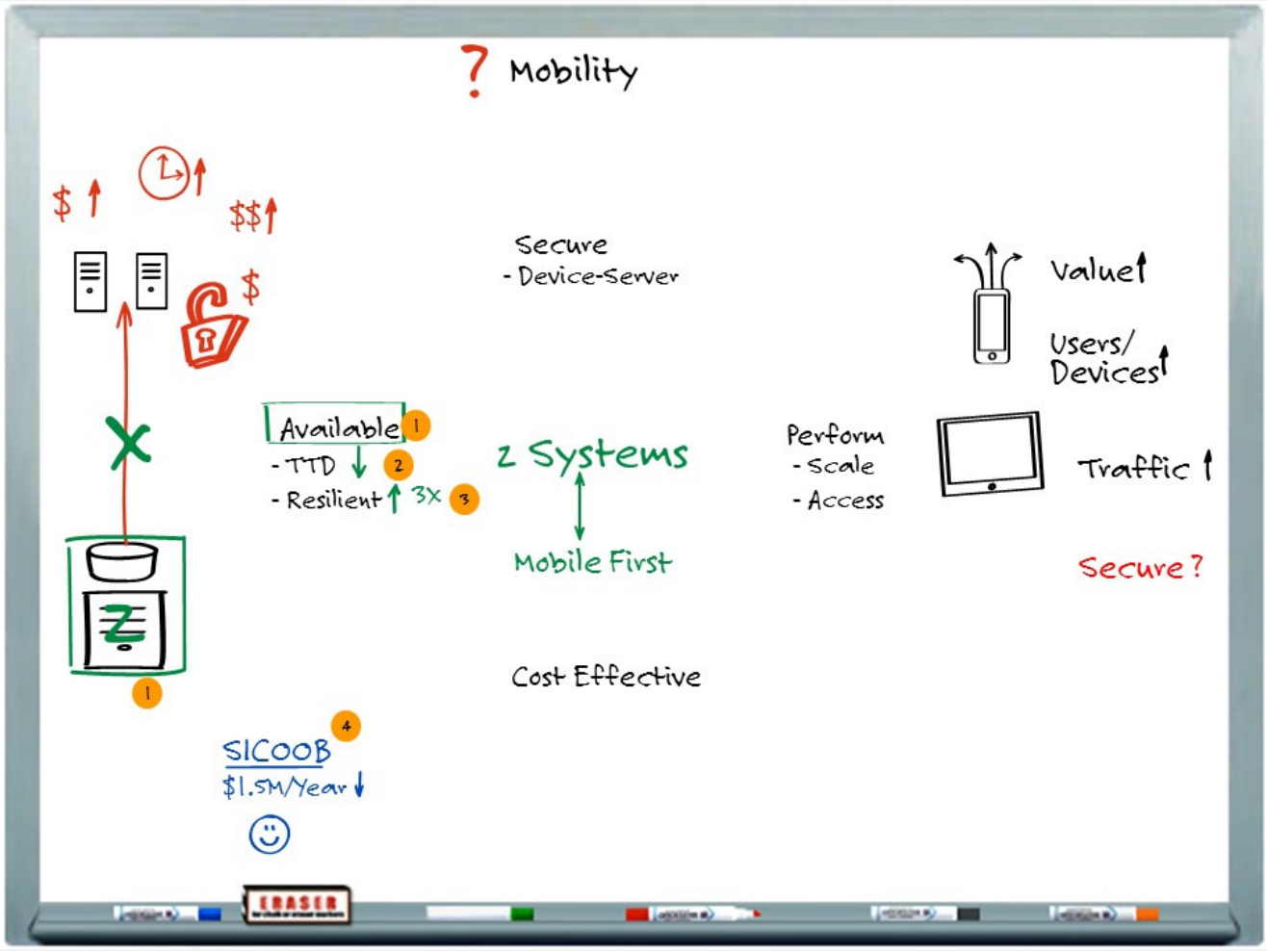
[Step 2] **(WRITE: X over up arrow)** These capabilities can enable you to minimize, if not eliminate, the need for an alternative infrastructure that requires you to replicate or transfer system of record data to make it available for mobile applications.

Instead, with z Systems, you have ONE infrastructure that enables you to use your existing applications, core transactions, and data to deliver new mobile on-the-go services AND applications.

[Step 3] **(WRITE: MobileFirst – DRAW: Arrow)** With IBM's mobile development and delivery solutions, especially IBM MobileFirst®, your team has access to all the capabilities to effectively and efficiently deliver cross-device applications in a fraction of the time. What you'll ultimately find is that a z Systems approach is cost-competitive with alternative offerings, and those offerings are *not* as reliable, scalable, or secure as z Systems.

Let me sketch out some of the ways z Systems and MobileFirst can be both your system of record AND enable your system of engagement.

7. DELIVERING AVAILABILITY AND RESILIENCY



[Step 1] **(DRAW: Box around Available)** When it comes to developing and delivering mobile capabilities, IBM has made the effort much easier and faster for your team. IBM has a complete set of tools and technologies to deal with all aspects of mobile application development, testing, deployment, and maintenance. For example, IBM MobileFirst Platform incorporates adapters that enable seamless integration with data that resides on z Systems, whether this data resides in DB2®, IMS™, or CICS® applications to support read-only AND transactional access. Your team can create mobile applications that simultaneously support the variety of devices out there – iOS, Windows®, Android, etc. The net result is to dramatically **reduce the time and effort to deliver and deploy** mobile capabilities. **[Step 2]** **(DRAW: Down arrow)**

With respect to resiliency and application availability, z Systems has demonstrated significantly higher resiliency over distributed environments and, in particular, x86 platforms (in the UK example we mentioned earlier – the x86 systems were the ones that failed – the z Systems-based SOR continued to run – also, x86 is the infrastructure for most public cloud providers). **[Step 3]** **(DRAW: Up arrow).** For example, an Interglobal study found that z Systems is 3X more resilient than x86 environments. **(WRITE: 3X)**

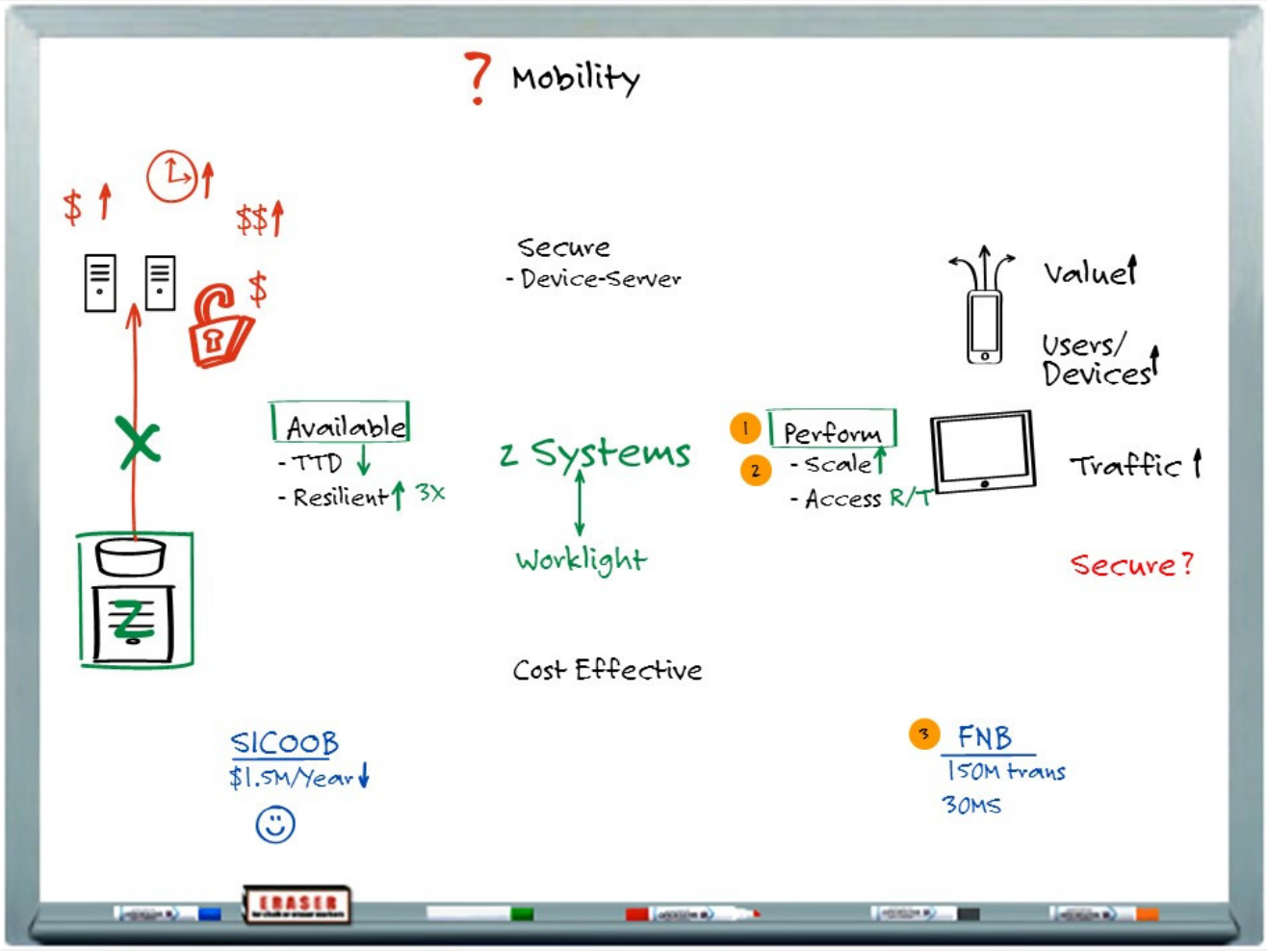
z Systems has demonstrated almost zero unplanned downtime – **less than 5 minutes per year**. For example at **SICOOB,** a credit union in Brazil, they had all their apps, including mobile, on distributed. Every evening, their operations manager was awakened because their systems were maxing out. They migrated all their

systems to Linux® on z Systems. With that move, they not only reduced their overall costs, including $1.5 million savings per year on energy, but also the availability of the system has been so good that the operations manager reports he has not been awakened in the middle of the night even once since they migrated to z Systems! His wife made that point! **[Step 4]** **(WRITE: SICOOB: $1.5M/year – DRAW: Happy Face).**

NOTE TO PRESENTER:

You should use references or customer examples that are relevant to the audience if possible.

8. DELIVERING PERFORMANCE AND SCALABILITY



[Step 1] **(DRAW: Box around Perform)** Performance is critical to the success of mobile applications. z Systems gives you the ability to **scale** to meet demand while at the same time ensuring the right level of **performance**. z Systems provides unmatched scalability to support high business growth – by being able to dynamically add capacity to running applications – and with MobileFirst server running on z Systems Linux, you will see significantly better scalability than on x86. **(DRAW: Up arrow)**

[Step 2] **(WRITE: Real-time)** By using z Systems as the system of engagement, you eliminate the cost, delay, and data integrity and potential security risks associated with offloading system of record data to another platform or environment. Instead, z Systems gives you a single system design with co-location of data and applications. The result is significantly fewer network hops – that means faster access and improved ability to deliver data or execute transactions. And with MobileFirst on z Systems, you will see better throughput (61%) and better response time (36%) than MobileFirst Server on x86.

For example, at FNB (First National Bank) with their system-enabled mobile applications, they have more than 150 million monthly mobile banking transactions, all operating with less than 30 milliseconds end-to-end response time. **[Step 3]** **(WRITE FNB – 150M – 30ms)**

NOTE TO PRESENTER:

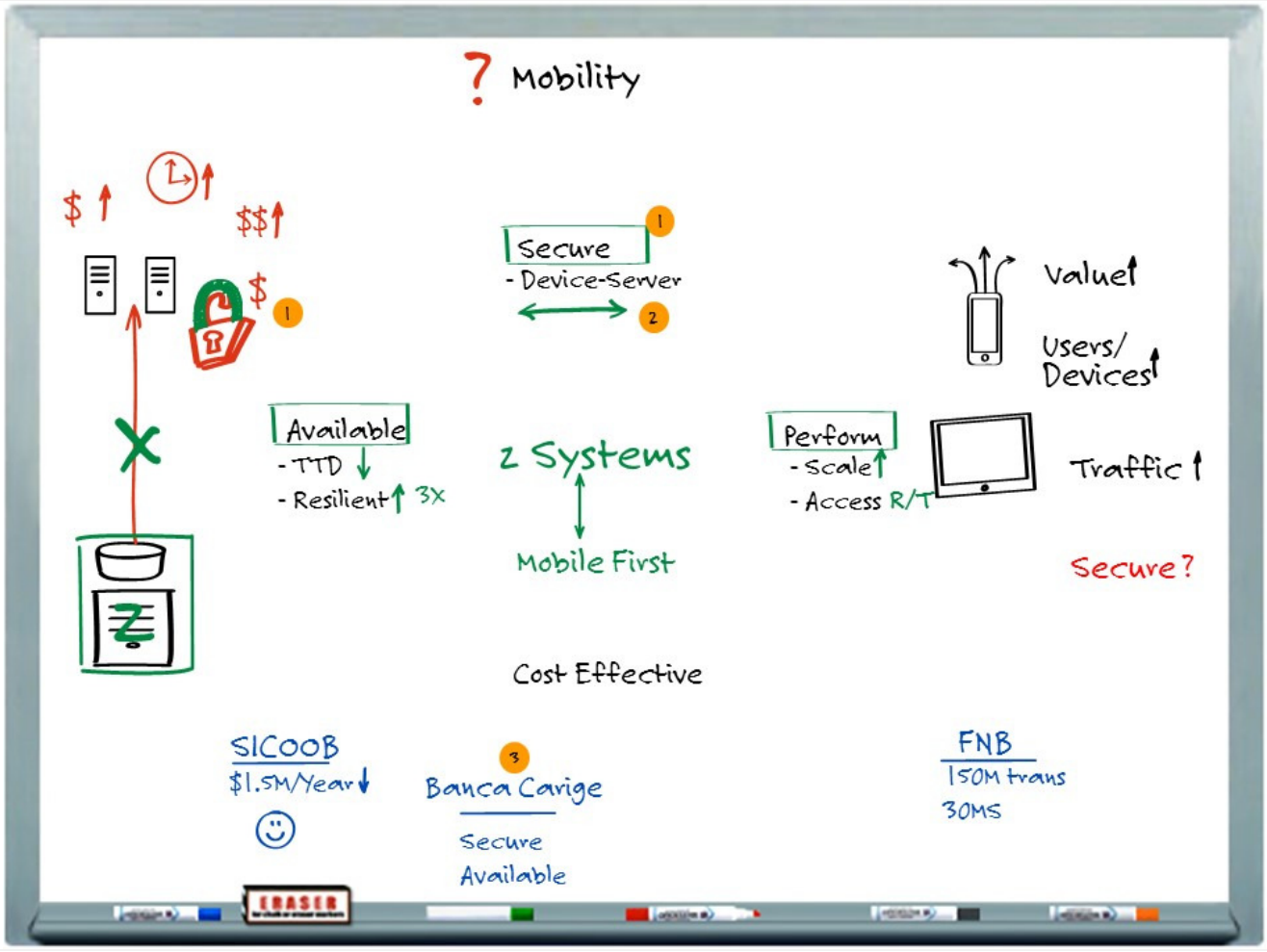
MobileFirst Statistics – CPO – Mobile Worklight Study, zLinux versus x86 v7.pptx

You should use references or customer examples that are relevant to the audience if possible.

The specifics on FNB are (these are in the Media Library):

1. Video -https://www.youtube.com/watch?v=Vwfc9gB5b1U
2. IBM.COM landing page - http://www.ibm.com/mainframe50/enginesofprogress/first-national-bank/
3. Long form Narrative - http://w3-01.ibm.com/sales/ssi/cgi-bin/ssialias?subtype=AB&infotype=PM&appname=STGI_ZS_ZS_USEN&htmlfid=ZSC03202USEN&attachment=ZSC03202USEN.PDF
4. FNB Ingraphic - http://w3-01.ibm.com/sales/ssi/cgi-bin/ssialias?subtype=ST&infotype=SA&appname=STGI_ZS_ZS_USEN&htmlfid=ZSJ03179USEN&attachment=ZSJ03179USEN.PDF

9. SECURING MOBILE – FROM DEVICE TO THE SERVER



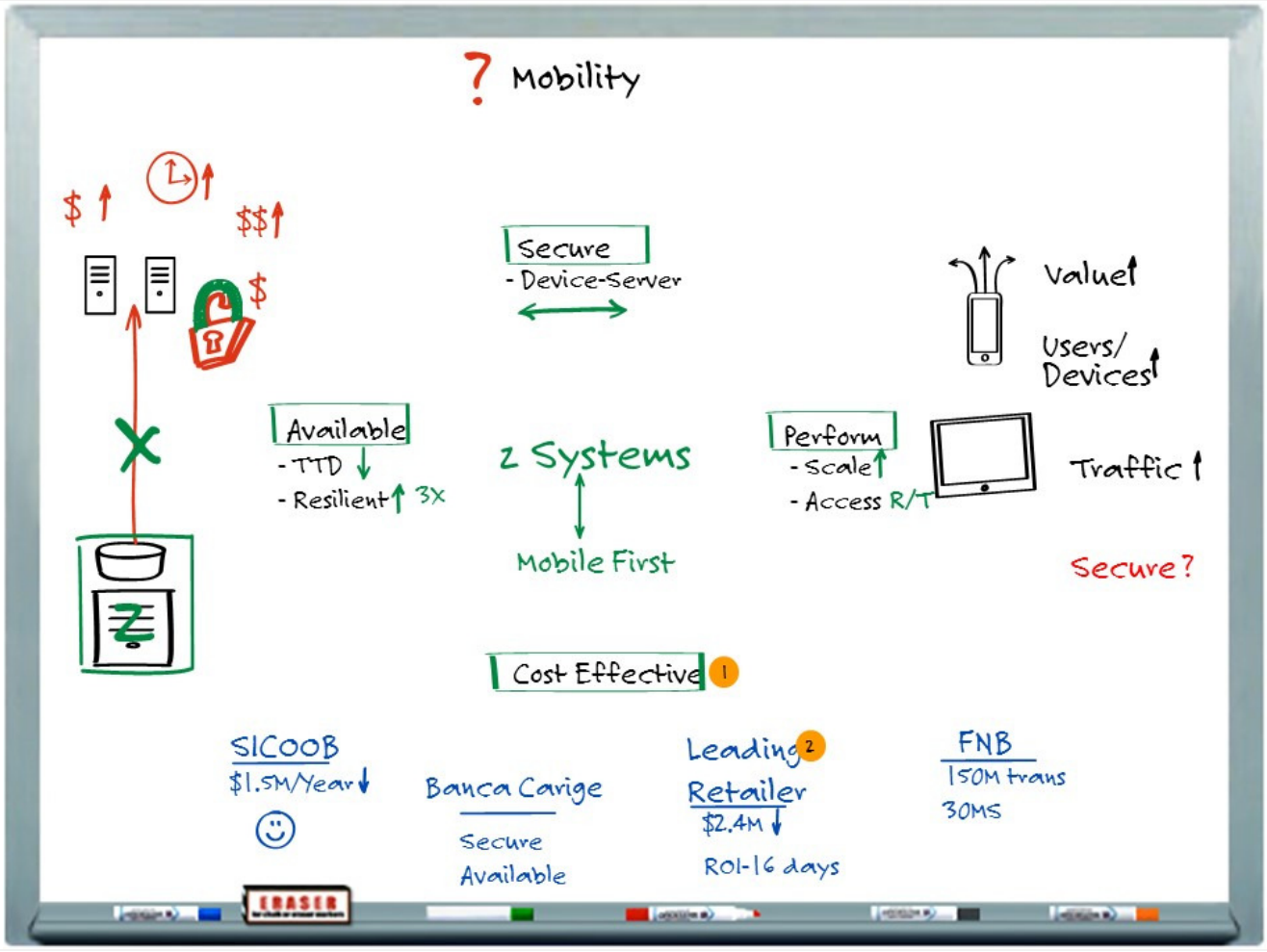
[Step 1] **(DRAW BOX around Secure – Draw Closed loop on lock)** z Systems, combined with other IBM mobile-related solutions, such as MobileFirst Protect Suites and QRadar®, can enable you to put in place a more trusted, secure mobile environment that goes from the device to the data and applications on the server. For example:

[Step 2] **(Draw - Arrow)** At the device, IBM provides capabilities that enable you to enforce security compliance for configuration and encryption, with the ability to erase data from lost or stolen devices. Many capabilities are available for developers, including facilities with the tools needed to encrypt application data and put in place application and data security. Over the network, IBM solutions run with secure traffic and protect access to enterprise resources by authenticating and authorizing mobile users and their devices, as well as enabling secure, encrypted connectivity over non-secure networks and infrastructure from mobile devices to backend systems.

With z Systems, and not having to transfer and replicate data as you would with cloud or distributed approaches, you further minimize the potential for security breaches or intrusion.

[Step 3] **(WRITE: Banca Carige – Secure – Available)** For example, as banking customers increasingly embrace web and mobile technologies, their expectations for secure 24x7 services are growing. For Banca Carige, one of the largest banks in Italy, to remain competitive they needed to enable round-the-clock secure availability for its digital channels. As they noted, with z Systems mobile applications, they can deliver and manage them all on a consistent, stable, and highly secure platform that offers enormous scalability and performance.

10. COST EFFECTIVENESS



[Step 1] **(WRITE: Box around Cost Effective)** Finally**,** with z Systems, you can deliver a cost-effective infrastructure to support your key requirements across all phases of development, deployment, and management.

Whether this is reducing the time, effort, and resources required to develop applications through IBM products such as the IBM MobileFirst Platform or reduce the effort to manage and secure mobile devices through IBM solutions, IBM can enable you to reduce the cost of mobile enablement.

If you are concerned that z Systems as the system of record for mobile will potentially drive up your cost for IMS, DB2, and CICS, IBM has put in place a pricing offering (MWRT) that can significantly reduce the impact of the monthly billing of transactions that are generated by a mobile device.

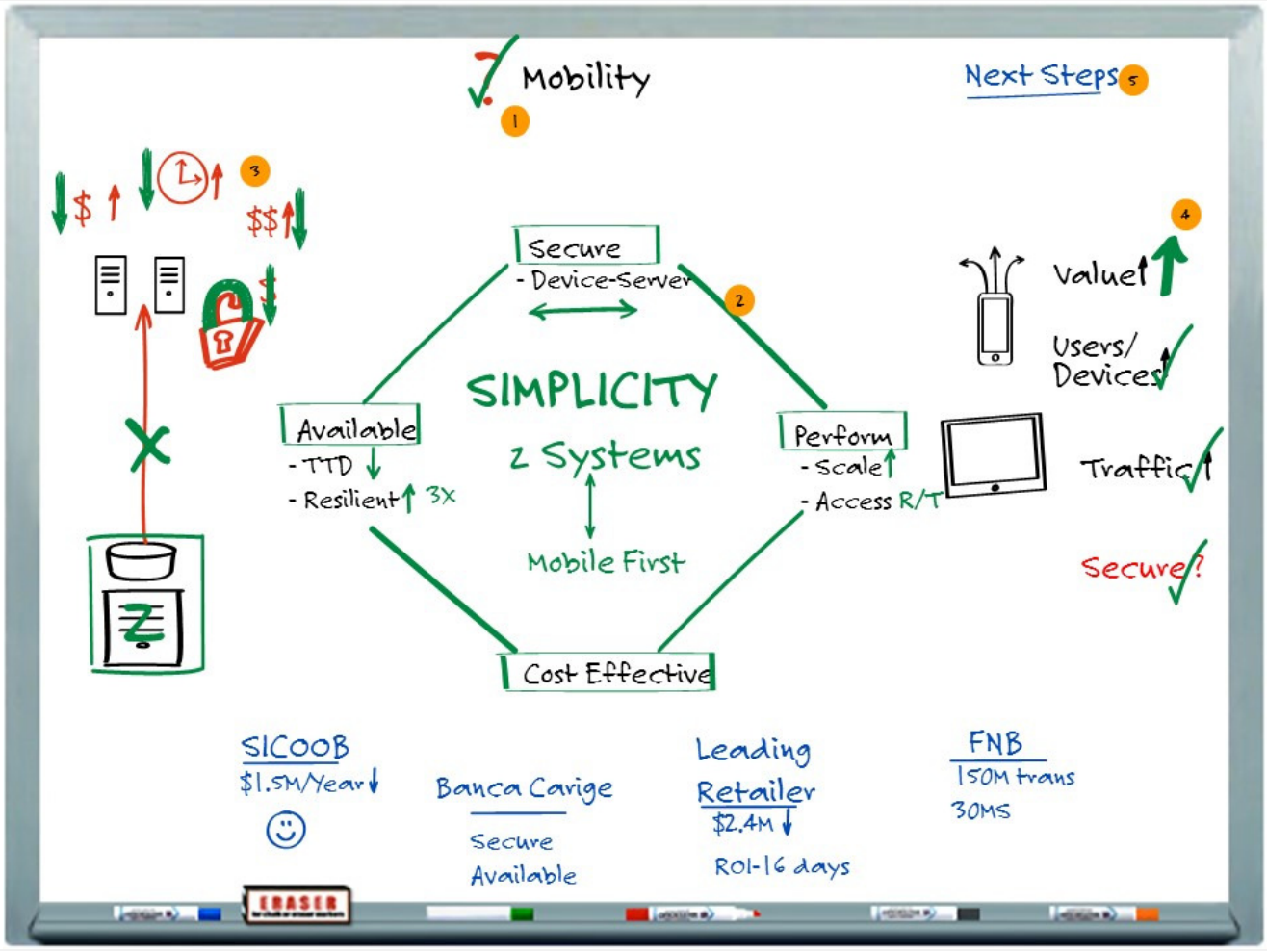
In the end, it's about the return on your investment. At one of the world's largest retailers, for example, they put in place a new B2E mobile-based inventory management system that enables them to keep shelves freshly stocked with items that customers want, saving the retailer over **$2.4 million** per year and giving them an ROI in only **16 days. [Step 2]** **(WRITE: Leading Retailer - $2.4M – ROI – 16 Days)**

NOTE TO PRESENTER:

You should use references or customer examples that are relevant to the audience if possible.

You should also be prepared to provide a general outline on the new pricing for Mobile Transactions - MWRT. MWRT is the new subcapacity tool for Mobile pricing. It stands for Mobile Workload Reporting Tool. It can be used for subcapacity pricing on the mainframe if you have applications running on the zEnterprise where the data origination is from a mobile device. With MWRT, customers may see up to a 60% cost reduction in mobile applications.

II. RECAP AND NEXT STEPS



[Step 1] **(DRAW: Check Mark)** I hope I've given you a better appreciation of how z Systems, along with products such as MobileFirst, can be the RIGHT FIT for your mobile activities … how z Systems can dramatically **SIMPLIFY** how you move forward with mobility. **[Step 2]** **(DRAW: Lines - WRITE: Simplicity)**

[Step 3] **(DRAW: Down arrows as you discuss – WRITE: X over "?")** We can help you, as we have other organizations, to: more cost-effectively and efficiently develop, deploy, and manage mobile applications and services to meet the growing number of mobile users and devices; to meet your increasing requirements for mobile-enabled applications; and to help you scale your environment to handle the growth in transactions and data; as well as to provide a trusted and secure environment that can help you deliver value to your users and to your organization. **[Step 4]** **(DRAW: Check marks – Up arrow)**

[Step 5] **(WRITE: Next Steps)** Based on what we've discussed, I'd like to suggest that we identify a specific next step.

What makes most sense to you? When can we arrange to get together?

SUGGESTED NEXT STEPS:

YOU SHOULD IDENTIFY A SPECIFIC ACTION OR ACTIVITY. SUGGESTIONS ARE NOTED BELOW.

- Conduct an assessment of your existing mobile infrastructure and your current and planned mobile applications portfolio.
- Conduct a z Systems mobile workshop, including presentations and demonstrations of how you can deploy mobile solutions on z Systems. A workshop can be technical or business-oriented or both.
- Arrange a tailored Proof of Concept to demonstrate the key benefits and capabilities that IBM can provide with your own systems, applications, and data.