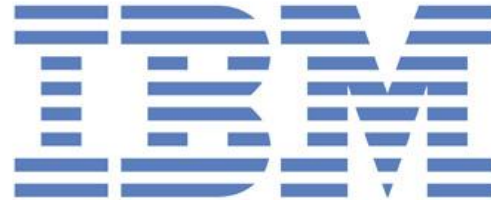


System z for Mobility



Jointly Developed With:



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Introduction to the Whiteboard

Purpose

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

The whiteboard is also intended to help educate SWG, STG, and client reps how System z provides a more effective alternative for mobile initiatives than going to distributed - x86 alternatives.

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

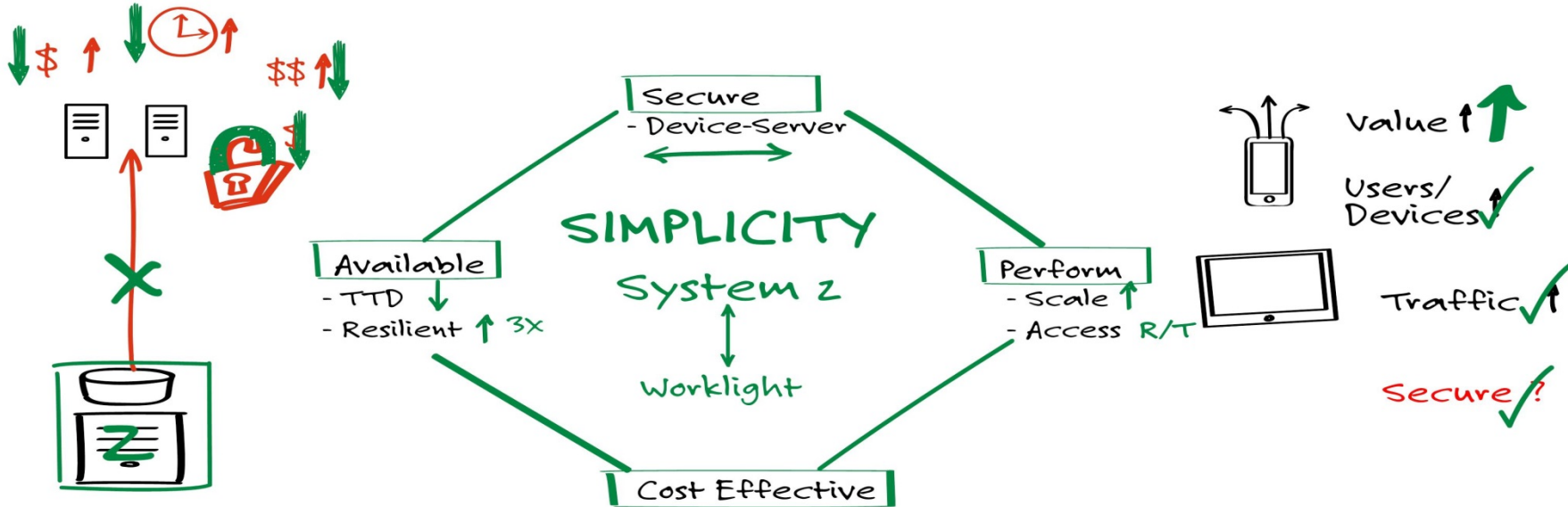
Prior to your meeting, identify customer stories or examples as well as mobile-related trends specific to the industry, region, or application areas that will resonate with the audience. To find updated information, check the Whiteboard Media Library:

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

Introduction to the Whiteboard

✓ Mobility

Next Steps



SICOOB
\$1.5M/Year ↓
😊

Banca Carige
Secure
Available

Leading Retailer
\$2.4M ↓
ROI-16 days

FNB
150M trans
30MS

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

Step 6 – System z 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

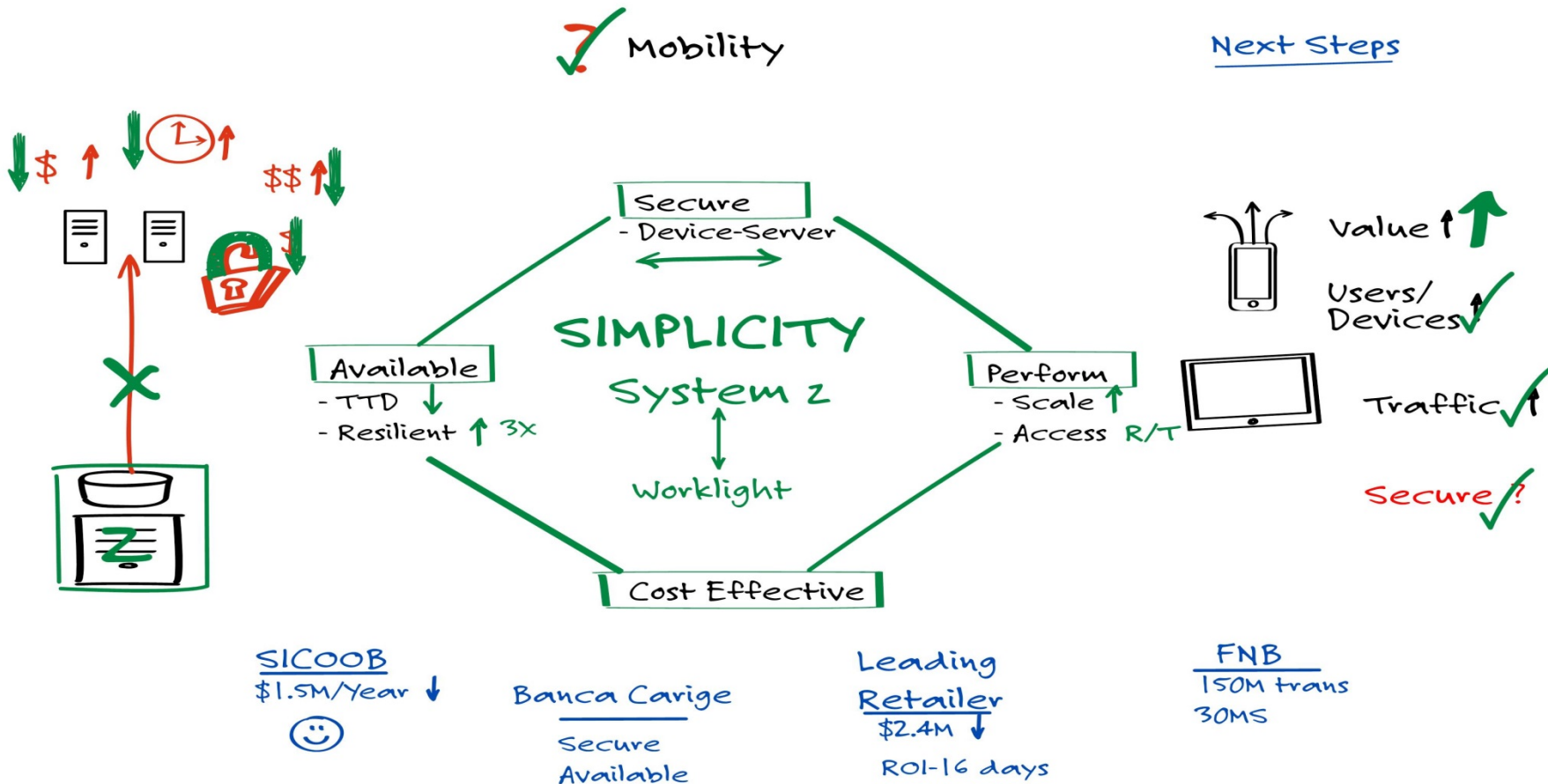
Blue - Topics we want to emphasize - typically action-oriented, i.e., someone is going to do something (outlining what we will discuss, for example) or has done something (customer story – which you can add to this whiteboard)

Red – Challenges or issues the audience faces with mobile applications

Green - Action or activity that either overcomes an issue or provides a positive outcome

NOTE: The items you should draw on the board are shown in **(BOLD)**.

Introduction to the Whiteboard - Continued



Setting the Stage

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. **(WRITE: Mobility)**

(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? What are you doing today?

NOTE TO PRESENTER:

System of Record – This refers to an application together with the application data. Systems of Record usually operate on the same platform, for example System z.

Mobility

value ↑

Mobile Challenges

(WRITE: Users – DRAW: Devices - Up arrow) For example, think about the increase in the number of users who want mobile access, the number and diversity of devices that they use, and then 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.

(WRITE: Traffic – DRAW: Up arrow) 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.

(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.

QUESTIONS TO ASK QUESTIONS TO ASK:

Is any of these impacting or driving your move to mobile?

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

Which ones are impacting you or are you concern about the most? Then add a statement: Important

NOTE TO PRESENTER:

Get the customer to talk about their concerns on Mobility and why they might be considering Public Cloud or X86.

You should consider using stats or trends which are associated with your audience – by region, industry, etc.

Sources:

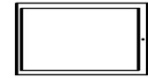
Mobile Users – Prof. Ramesh Sitaramar, Computer Science, UMASS Amherst.

Mobility



value ↑

Users ↑



Traffic ↑

Secure ?

Approaches to Mobile

(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?

(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:

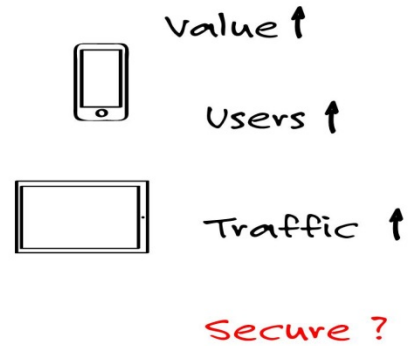
QUESTIONS TO ASK

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 they spending each day or some other time period?

? Mobility



6 The Operational Challenges

(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 (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. **(DRAW: Clock - Up arrow).**

Availability can also mean that once up and running, your mobile service must also be resilient and ultra-reliable. **(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? **(WRITE: \$\$ - DRAW: Up arrow)**

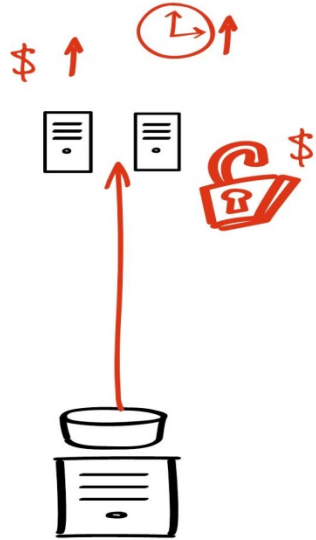
(WRITE: Secure – Device-Server) Mobile-enabled applications can put more pressure on your security infrastructure. You have to deal with potential exposures from users’ devices to the network, to the application, and to the data and the server infrastructure. So, what type of investment will be required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

- Are these in line with some of the issues you have considered?
- Are there any priorities that you have established in dealing with these or other challenges?

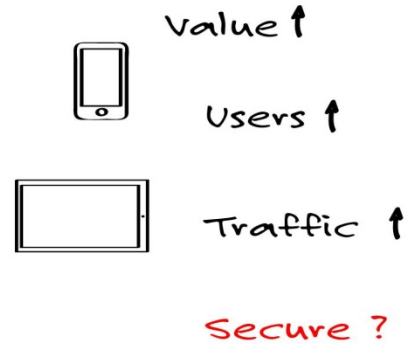
6 The Operational Challenges

? Mobility



Available
- TTD
- Resilient

Secure
- Device-Server



7 The Operational Challenges

As we discussed earlier, mobile users want and often demand the right level of performance and throughput. **(WRITE: Perform)**;

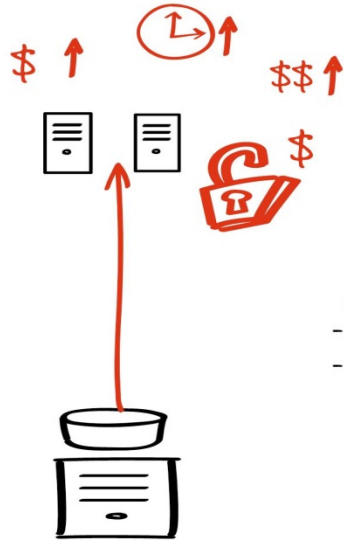
As the number of users, the number of transactions, the amount of data, and the number of applications increase, how do you meet performance and scalability requirements? **(WRITE: Scale)** If you have a distributed or x86 environment, do you invest now in anticipation of growth? Or, do you wait until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

(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)**

(WRITE: Cost Effective) Finally, it always comes down to a question of cost. 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 number of apps increase?

7 The Operational Challenges

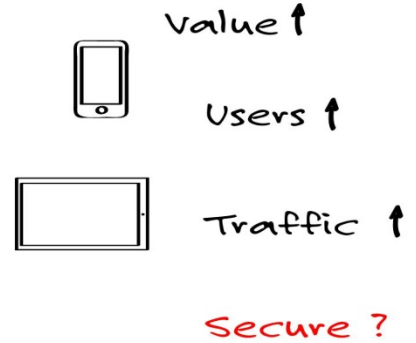
? Mobility



Available
- TTD
- Resilient

Secure
- Device-Server

Perform
- Scale
- Access



Cost Effective

System z for Mobile

As we discussed, some organizations take an initial approach but find that approach fail 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 System z, along with the full range of development, deployment and management solutions that IBM has introduced for System z-enabled mobility.

(WRITE: System z - DRAW: Box around server – Write “Z”)

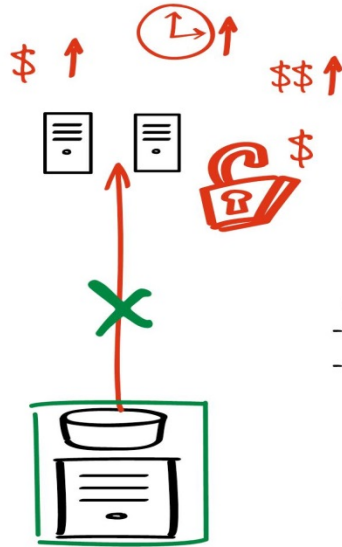
(WRITE: X over up arrow) These capabilities can enable you to minimize, if not eliminate, the need for an alternative infrastructure that requires you to replicate or transfer system of record data to make it available for mobile applications.

Instead, with System z, 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.

(WRITE: Worklight – DRAW: Arrow) With IBM’s mobile development and delivery solutions, especially IBM Worklight 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 System z approach is cost-competitive with alternative offerings, and those offerings are not as reliable, scalable, or secure as System z.

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

? Mobility



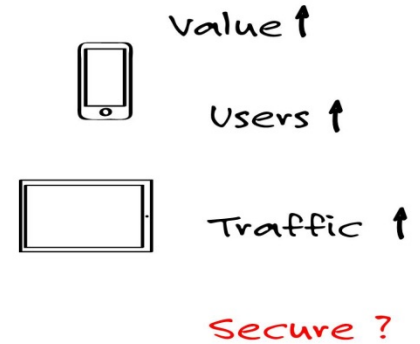
Available
 - TTD
 - Resilient

Secure
 - Device-Server

System z
 ↔
 Worklight

Cost Effective

Perform
 - Scale
 - Access



Delivering Availability & Resiliency

(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 Worklight incorporates adapters that enable seamless integration with data that resides on System z, 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 dramatically reduced time and effort to deliver and deploy mobile capabilities. (DRAW: Down arrow)

With respect to resiliency and application availability, System z has demonstrated significantly higher resiliency over distributed environments and, in particular, x86 platforms (the infrastructure for most public cloud providers). (DRAW: Up arrow). For example, an Interglobal study found that System z is 3X more resilient than x86 environments. (WRITE: 3X)

System z 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 applications, including mobile, on distributed. Every evening their operations manager was awakened because their systems were maxing out. They migrated all their system to Linux® on System z. 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 even once since they migrated. His wife made that point! (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.

The specifics on the SICOOB customer story can be found at the following:

http://www-01.ibm.com/common/ssi/cgibin/ssialias?subtype=AB&infotype=PM&appname=SWGE_ZS_SW_USEN&htmlfid=ZSC03167USEN&attachment=ZSC03167USEN.PDF

Delivering Availability & Resiliency

? Mobility

\$ ↑ ⌚ ↑ \$\$ ↑



X



Available
- TTD ↓
- Resilient ↑ 3x

SICOOB
\$1.5M/Year ↓



Secure
- Device-Server

System z

Worklight

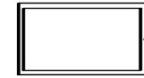
Cost Effective

Perform
- Scale
- Access



value ↑

Users ↑



Traffic ↑

Secure ?

Delivering Performance & Scalability

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

(WRITE: Real-time) By using System z as the system of engagement, you eliminate the cost, delay, data integrity and potential security risks associated with offloading system of record data to another platform or environment. Instead, System z 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 Worklight on System z, you will see better throughput (61%) and better response time (36%) than Worklight 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. **(WRITE FNB – 150M – 30ms)**

NOTE TO PRESENTER:

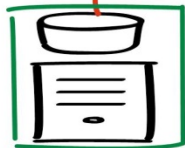
You should use references or customer examples that are relevant to the audience if possible.

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

? Mobility

\$ ↑ ⌚ ↑ \$\$ ↑



Available
- TTD ↓
- Resilient ↑ 3x

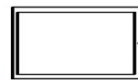
Secure
- Device-Server

System 2

Worklight

Cost Effective

Perform
- Scale ↑
- Access R/T



value ↑

Users ↑

Traffic ↑

Secure ?

SICOOB
\$1.5M/Year ↓
😊

FNB
150M trans
30MS

Securing Mobile from Device to the Server

(DRAW BOX around Secure – Draw Closed loop on lock) System z, combined with other IBM mobile-related solutions, such as Worklight 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:

(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 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 System z, 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.

(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 System z mobile applications, they can deliver and manage them all on a consistent, stable, and highly secure platform that offers enormous scalability and performance.

NOTE TO PRESENTER:

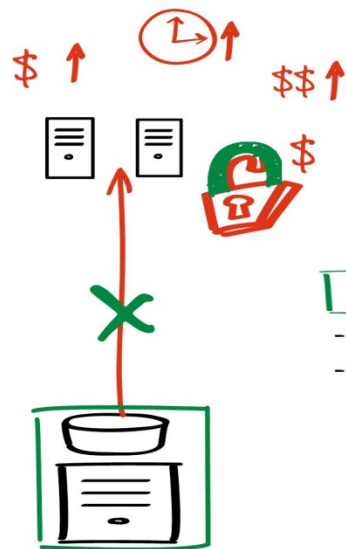
You should use references or customer examples that are relevant to the audience if possible.

The specifics on this customer story can be found at:

http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?subtype=AB&infotype=PM&appname=SWGE_ZS_ZS_USEN&htmlfid=ZSC03256USEN&attachment=ZSC03256USEN.PDF#loaded

Securing Mobile from Device to the Server

? Mobility



Secure
- Device-Server
↔

Available
- TTD ↓
- Resilient ↑ 3x

System 2
↕
Worklight

Perform
- Scale ↑
- Access R/T

value ↑
Users ↑
Traffic ↑
Secure ?

Cost Effective

SICOOB
\$1.5M/Year ↓
😊

Banca Carige
Secure
Available

FNB
150M trans
30MS

Cost Effectiveness

(WRITE: Box around Cost Effective) Finally, with System z, 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 Worklight 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 System z 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 which dramatically reduces the impact of the monthly billing of transactions which 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**. **(WRITE: Leading Retailer - \$2.4M – ROI – 16 Days)**

QUESTIONS TO ASK 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.

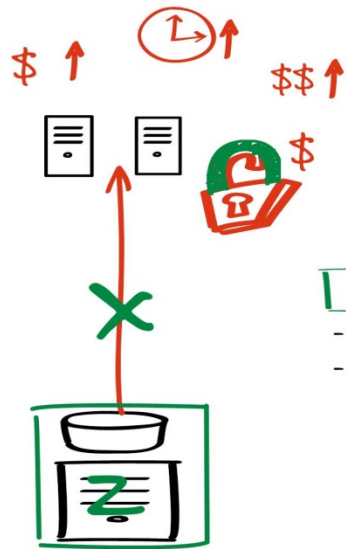
Comparison based on IBM studies and appeared in CRN.

<http://www.smartercomputingblog.com/system-z/zenterprise-cloud-award/>

Here is the graph. Where PC is PRIVATE CLOUD, x86 is x86 platforms and z is System z.

Cost Effectiveness

? Mobility



Available

- TTD ↓
- Resilient ↑ 3x

Secure

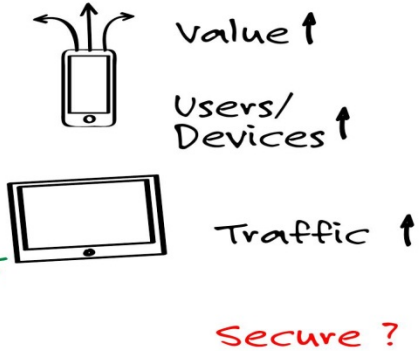
- Device-Server

System z

Worklight

Perform

- Scale ↑
- Access R/T



Cost Effective

SICOOB
\$1.5M/Year ↓
😊

Banca Carige
Secure
Available

Leading Retailer
\$2.4M ↓
ROI-16 days

FNB
150M trans
30MS

Recap & Next Steps

(DRAW: Check Mark) I hope I've given you a better appreciation of how System z along with products such as Worklight can be the RIGHT FIT for your mobile activities ... how System z can dramatically **SIMPLIFY** how you move forward with mobility. (**DRAW: Lines - WRITE: Simplicity**)

(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; 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.

(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?

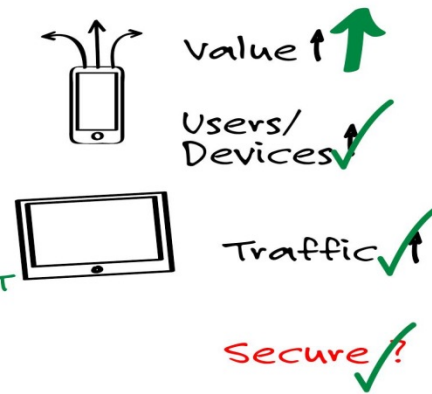
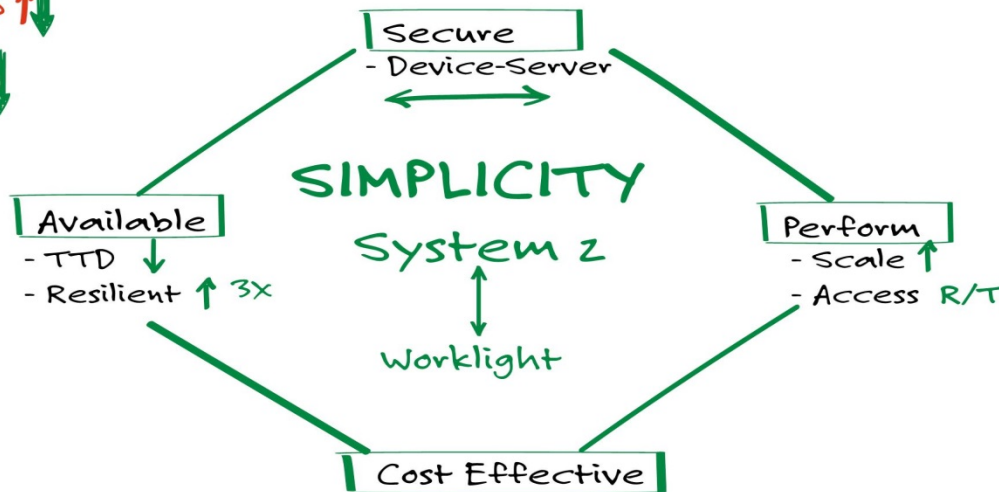
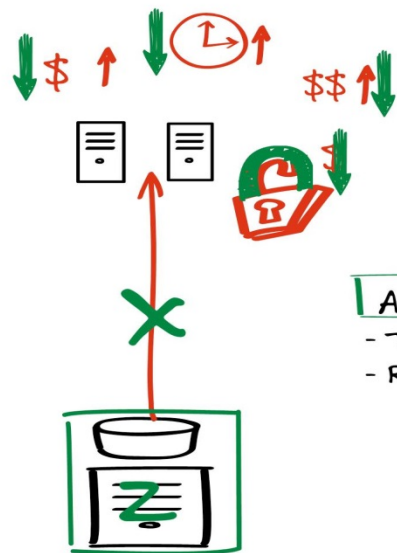
QUESTIONS TO ASK SUGGESTED NEXT STEPS:

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 System z mobile workshop, including presentations and demonstrations of how you can deploy mobile solutions on System z. 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

✓ Mobility

Next Steps



SICOOB
\$1.5M/Year ↓
☺

Banca Carige
Secure
Available

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\$2.4M ↓
ROI-16 days

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