IBM ELAs and Mainframe Capacity Planning

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Enterprise Performance Strategies

Agenda

- Background information
- How are Mainframe costs affected by an ELA?
- What do you have to plan for?
- ELA Risk Summary
- Recommended practices

Important note

Every ELA is Different!

- There are some sweeping generalizations in here based on experience. But in the past six months the rules have changed, and probably will again in the future.

Background info

IBM Software types

- **MLC – Monthly License Charge**
  - Licensed by capacity on a month by month basis
  - No up-front cost to acquire software
  - Support
- **zOTC – One Time Charge (IPLA)**
  - One-time charge: up-front cost to acquire software, maintenance charged annually and entitles you to new versions
  - Support
- **PPA - Passport Advantage**
  - Non-mainframe software

May be Discounted in ELA

Discounts Offered

Sub-capacity pricing

- MLC has multiple pricing metrics, some of which are based on used capacity instead of installed capacity
  - In most cases, the Peak R4H – Rolling 4 hour Average utilization
- VWLC, AWLC, etc. can provide significant cost savings
  - Tens of thousands of dollars per month quite possible
  - Potential percentage savings higher for smaller shops than larger shops due to the MLC price curve
- Must be actively managed
  - Ongoing performance monitoring to balance costs with performance
  - Send usage data to IBM monthly
- Monthly MLC costs are variable based on the utilization two months prior
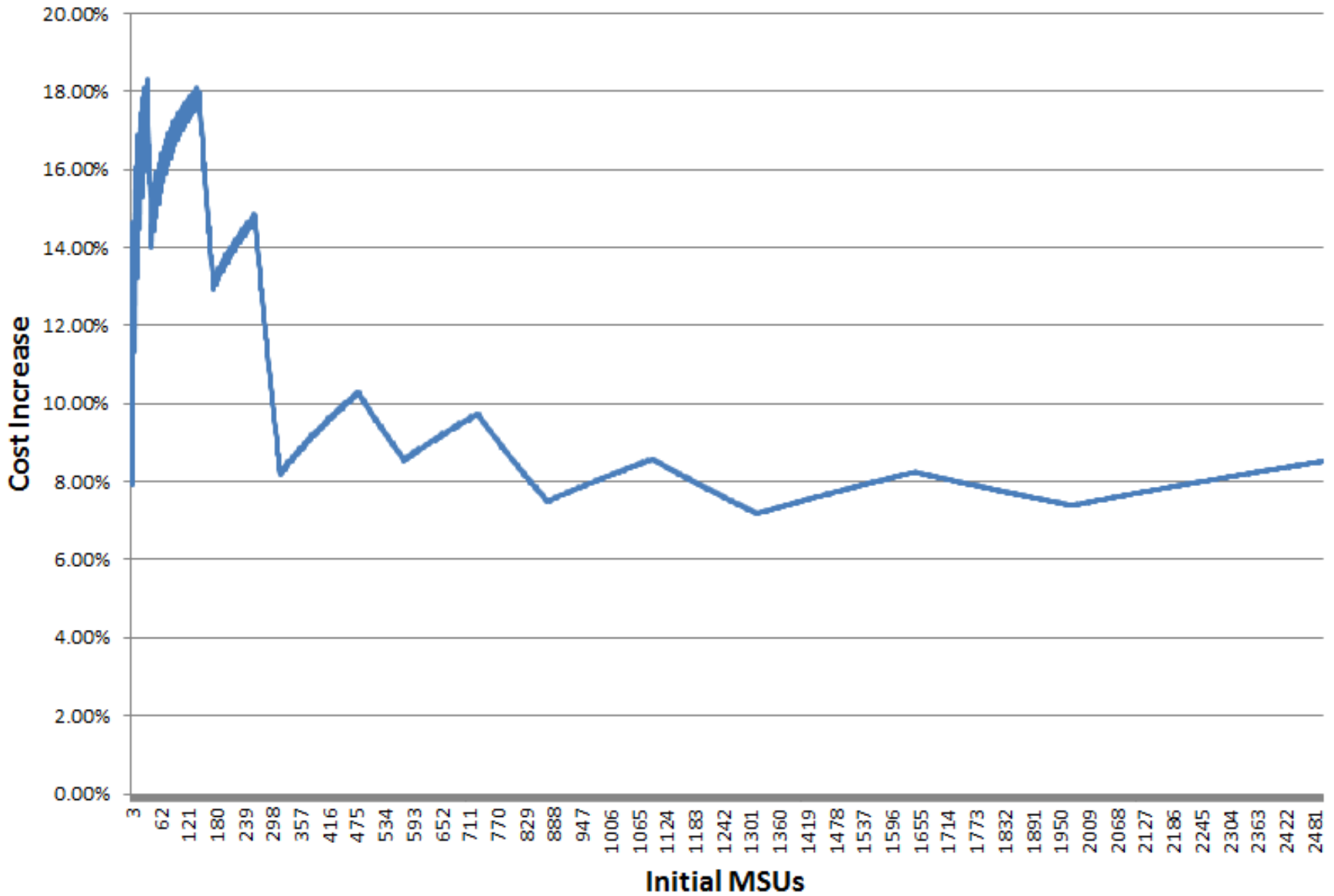 - e.g. Jan usage sets March bill

MLC Price Curves

Cost / Month

MSUs

zOS Base VWLC (z10)   zOS Base AWLC TU (zEC12)
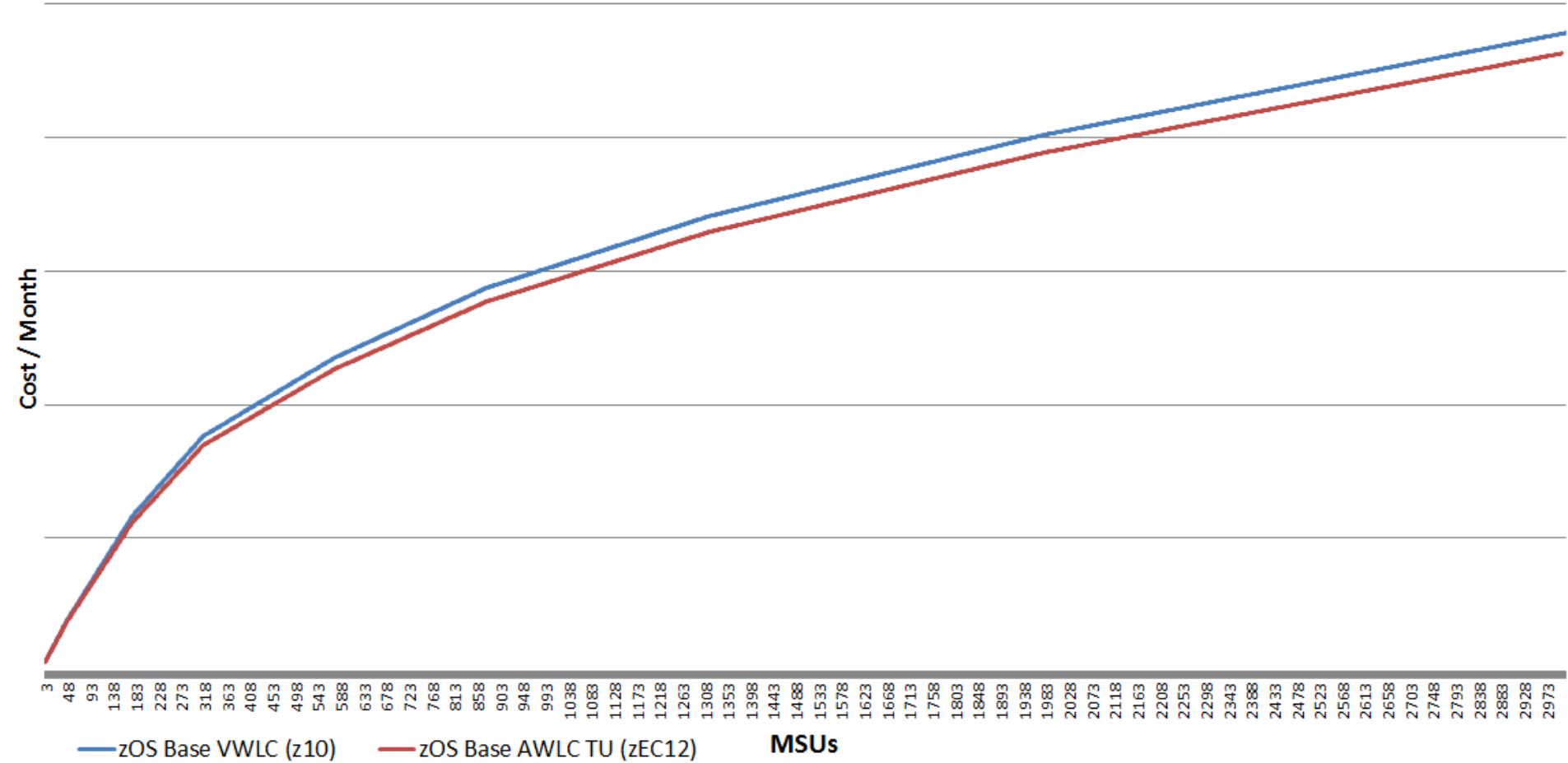
Percent Cost Increase to Increase Capacity 20%
(z/OS Base AWLC TU)

What is an IBM ELA

- In short: an agreement to purchase software over the course of the ELA
  - Helps with budgeting
- Typical ELA period is 1-3 years
- Covers entire IBM Software portfolio:
  - MLC (Mainframe Monthly License Charge)
  - zOTC (Mainframe One Time Charge)
  - PPA (Passport Advantage)

Every ELA is Different!

ELA Process

- Customer and IBM partner to estimates the "business as usual" IBM software costs over the ELA period

- IBM takes in to consideration the net new spend and applies a discount that number and to PPA and z/OTC maintenance

  – And now maybe MLC(?!?)

- Total number becomes the ELA amount

Why do an ELA?

- Levels the periodic payment to IBM
  - Total ELA spend is divided into level monthly, quarterly or yearly payments
- Helps with budgeting
- Potential flexibility for acquiring new products
  - "Catalog"
  - "Blue dollar bucket"
  - "Cross Brand Allotment"
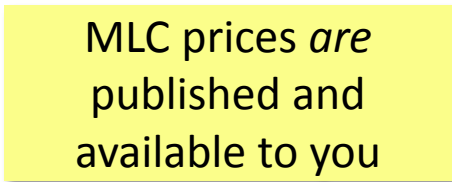- Potential for MLC discount

MLC Cost Impacts

How are Mainframe costs affected?

- Signing up for an ELA does _not always_ mean your MLC software is discounted

- MLC spend does impact level of discount IBM will provide on the total ELA spend
  - Interesting internal accounting question: should those discounts be spread to the mainframe cost pool?

Every ELA is Different!

MLC prices _are_ published and available to you

MLC Tracking (within an ELA)

- IBM account team tracks the customer's actual MLC charges each month
  - Month to month charges may vary based on:
    - Usage (if doing sub-capacity pricing)
    - Customer changing software versions
    - Customer adding or removing software products
    - IBM price increases
- IBM account team periodically reviews with the customer

MLC True-up?

- After each year of the ELA, the accumulated actual MLC charges are compared to what the customer actually paid
  - If accumulated MLC liability > what was paid, customer owes IBM some money ?
  - If accumulated MLC liability < what was paid, customer may receive some IBM credit ?
  - If you take action to reduce your MLC costs, what do you get from that?
- The answer will be spelled out in the ELA—make sure you understand it!

Every ELA is Different!

Planning for an ELA

MLC Planning

- All of the following impact the MLC costs over the ELA period and must be planned for, month by month:
  - Your installed / used MSU capacity
  - Hardware changes
  - Software version changes that trigger an upcharge
  - Software version migrations that exceed 12 months (SVC)
  - MLC inventory additions / deletions
  - Sub capacity pricing metric changes
    - Usually due to hardware generation change
  - Unannounced IBM price changes?
- If things don't go according plan, what happens?

Capacity planning

- If you're not using sub-capacity pricing WHY?
  - Need to determine if you're going to need to do a hardware upgrade during the ELA period
- If you're using sub-capacity pricing
  - Plan your capacity requirements month-by-month
    - Consider impact from: application changes, business changes, tuning efforts, new software releases, incidents
  - Convert to MSU consumption (taking into account any planned hardware changes)
  - Map the planned utilization month to the billing month

Hardware changes

- Hardware changes will possibly change:
  - How many MSUs it takes to run your workload
  - The pricing metric used to determine your MLC charges (e.g. move from VWLC to AWLC)
- Need to plan for when the changes will occur and the how much they will impact things
  - E.G. in one simulation I saw a 6% MSU increase (vs effective capacity) by moving a workload from zEC12 4xx to a 5xx
- When migrating between hardware generations, transitional pricing metrics may be involved

Software version changes

- MLC software version changes no longer mean a price increase at time of upgrade
  - E.G. DB2 v10 & v11 are the same price
- 12 months of SVC (Single Version Charge)
  - z/OS is 24 months
  - Grace period within which you can have both the old and new version installed
  - If not done within SVC period, charged for both versions!
- ELA plan needs to account for MLC software price increases
  - Generally get a few months warning
- If you think a conversion project will extend past SVC period, plan for that too!

Software retirements / additions

- MLC Inventory changes, although probably rare, need to be planned for
- Possible examples:
  - Are you going to retire the last PL/I application, and so retire the PL/I compiler?
  - Do you not have MQ on z/OS today, but you're planning on putting it there?
  - Are you going to migrate from a third party product to an IBM product such as RACF, RMM, DFSort, etc.?
    - Or vice versa?

Unannounced Price Changes

- Price changes rarely announced more than 6 months in advance of effective date

- Price changes used to be tied to version changes, but not necessarily so any more
  - New versions of some products (e.g. DB2) will be same as previous version
  - But when will price increase on all versions?

- In the new paradigm of IBM negotiating more, I'd try to get price protection in the ELA

ELA Risks

ELA Risks

- Can you accurately plan all of the previous over the required ELA period?
  - Planning likely starts 3-4 months before the ELA
  - Difficult to plan all those things across 15 months, let alone multiple years
- If you get it wrong:
  - You could end up with a bill from IBM
  - You could pay IBM more than you should have
- Newer ELAs attempt to address this with CBA

What if you don't plan well?

- That depends on the ELA

- You might be able to leverage an overpayment to acquire needed IBM software

- But if you underpay, you're probably going to owe IBM some money

- A reasonably accurate plan will be better for everyone

Every ELA
is
Different!

More subtle issues

- If something new comes along that reduces your MLC bill, it may not reduce your actual spend
  - Unless you're on track to have to pay IBM money anyways
    - But maybe you can leverage the CBA to acquire products you need
  - Common example: "technology dividend" of moving to latest machines
- Planning your software upgrades for a particular month a year or more in advance may lock you into a schedule that doesn't fit changing business needs

Recommended Practices

Educate Everybody

- ELAs are Big Deals involving lots of Important People
  - Most of the people involved probably don't understand everything we just talked about
- The capacity planner needs to be closely involved
- The performance people need to be involved if using sub-capacity pricing
- You need to educate everybody about providing accurate upgrade plans
    - Customer: "Yeah we'll do an upgrade sometime in the next 2 years"
    - IBM: "I'll put it down for 6 months from now just to be safe."
    - Customer: "Sure, that sounds great, I'd really like to get that in."
    That's a recipe for overpaying if really it's not going to go in for 10-12 months!
- Somebody needs to understand IBM MLC pricing in detail
  - Capacity planner may be a good person to task with this

Plan Carefully

- Plot out all the moving parts, by month:
  - Capacity requirements
  - Software upgrades
  - Hardware upgrades
  - Software additions and retirements
  - Software price changes (announced or not)
- If you don't plan, you could potentially overpay or owe IBM money

Manage Your R4H

- Use Group Capacity Limits (Soft Cap)
  - Key to keeping your R4H somewhat predictable
- Make sure your WLM policy is good
  - Capping will hurt somebody, make sure it hurts the right somebody
- Consider WLM Resource Groups
  - May help protect the R4H from low-importance workloads in shoulder times
- Monitor the systems and be prepared to adjust caps to meet necessary performance goals
  - Must balance performance vs. ELA impact

Understand the Consequences

- What happens if you over/under pay will vary by ELA terms—so read and understand them
- Likely the consequences are a compromise
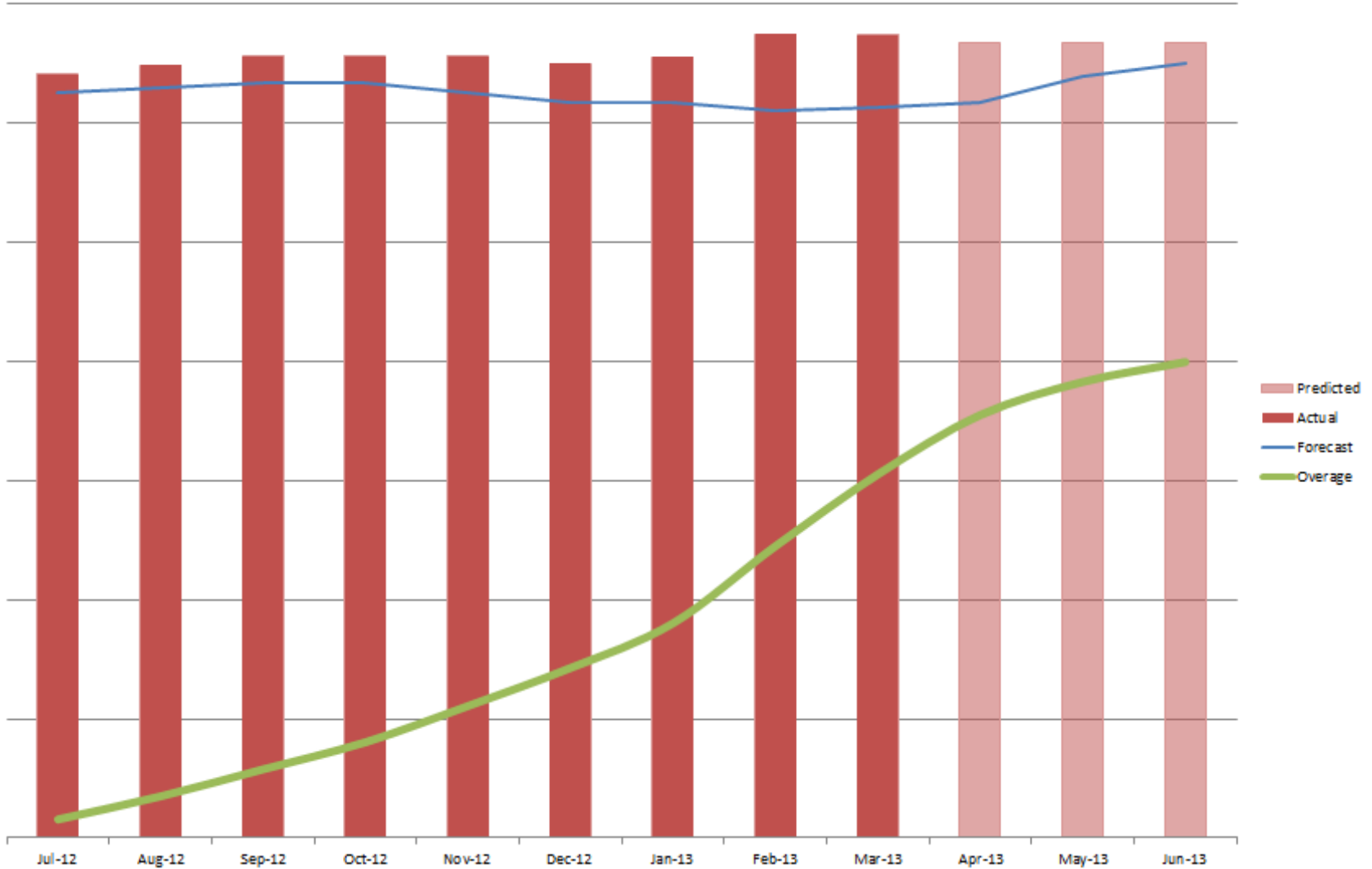- Either way, plan carefully to minimize the variance

Track it

- Your IBM account team should provide you with monthly or quarterly variance reporting
- But also track the details yourself
  - Doesn't hurt to double-check IBM's math
  - You may want to do your own projections
  - Probably should be done by whoever best understands the overall environment

Even better, make a picture…

2012 ELA

Legend: Predicted, Actual, Forecast, Overage

Months: Jul-12, Aug-12, Sep-12, Oct-12, Nov-12, Dec-12, Jan-13, Feb-13, Mar-13, Apr-13, May-13, Jun-13

Beware multi-year ELAs

- Even a single-year ELA involves substantial planning risk

- Multi-year ELAs may lock you into a technology plan that may not make much sense a year from now

- Given the additional risk, there should be some significant reward for signing a multi-year ELA

Summary

ELAs require significant planning

- If you don't plan your ELA carefully, you may be unhappy one way or the other
- ELAs are significant capacity planning exercises
- Make sure everybody understands how the ELA works
- Track your progress during the ELA
- Manage your R4H

Reference links

- zPricing
  - http://www-03.ibm.com/systems/z/resources/swprice/
  - VU converter tool
- Software Support
  - http://www-304.ibm.com/support/customercare/sas/f/handbook/offerings.html

Questions / Comments?

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