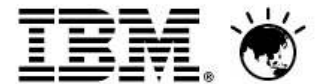# Planning and Undertaking a Maximo Upgrade

James Manna – IBM Global Business Services

June 2013

Speaker: James Manna

- IBM GBS - Maximo Solution Team

- 6+ Years working with Maximo versions 4, 5, 6 and 7

- 13+ years Enterprise Information System experience

- Experience working as a Maximo Administrator, Developer, Business Analyst, PM, Consultant and Solution Architect

- Hands on experience in a broad range of Maximo Upgrades and Implementations

Key Topics for Todays Session

- Upgrade Planning
  - Building your business case
  - Upgrade Strategy
  - Estimating Scope and Effort
- Upgrade Execution
  - Maximo Upgrade Approach
  - Leveraging the GBS Upgrade Laboratory
  - Upgrade Components & Stages
- Risk Management Summary

Focus: Considerations – Questions – Lessons Learnt

Planning: **Bringing your Business Case to Life**

Upgrade Strategic Objectives?
- Aligned with the organisations strategic objectives?
- Are the strategic objectives aligned across business units? (Operations, Engineering & Maintenance, Supply Chain)

Business Considerations
- What is your organisations appetite for Change?
- Who are the stakeholders?
- What other initiatives are you competing with in the Budget Cycle?

Quantify the Upgrade ROI?
- How can we justify/quantify? BVA?
- Reduced future upgrade cost?
- End of life support?
- Leverage new features for reduced MRO costs and reduced downtime?
- Ability to access newer/latest Industry Solutions and Add on products?

Key Performance Indicators?
- Do you have KPI's in Place?
- Do they align with your upgrade strategic objectives?
- Are your team members aware of the KPI's?
- Are their performance reviews tied to KPI's?

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Planning: **Building your Business Case**

Governance and Structure
- Identify budget holder to be your "Project Champion"
- Identify members of cross functional team to bring the case together
- Building Blocks of Steering Committee

Selling the Business Case
- Create an "Elevator Pitch"
- Use your cross functional team and project champion to build "Buzz"

Magic Wand Sessions
- Go to your user community and do "Magic Wand Sessions"
- Turn your "Magic Wand Sessions" into functional and non-functional requirements
- Begin refining and prioritising requirements

Requirements, Scope & Resources
- Use the requirements to identify what kind of resources you will need to execute the upgrade
- Start forming a resource profile
- Be clear on BAU resource involvement
- Start forming a baseline scope from the requirements
- Continue to align with Strategic Objectives

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Planning: v7.5.x Feature Re-cap to Support Justification

Usability & Framework Enhancements

- Updated Look and Feel
- Application Import/Export
- Improved Table window refresh behaviour
- Improved List Page Behaviour
- Enabled 'heads down' data entry (asynchronous validation)
- Browser zoom enabled, users can zoom in (ctrl+) or zoom out (ctrl-) of application screens
- Faster date/time look up (new calendar control)
- Rich-text editor (can format text the way they want to see it)
- Enhanced QBR (save and edit QBR's)
- Automation Scripting

Application Enhancements

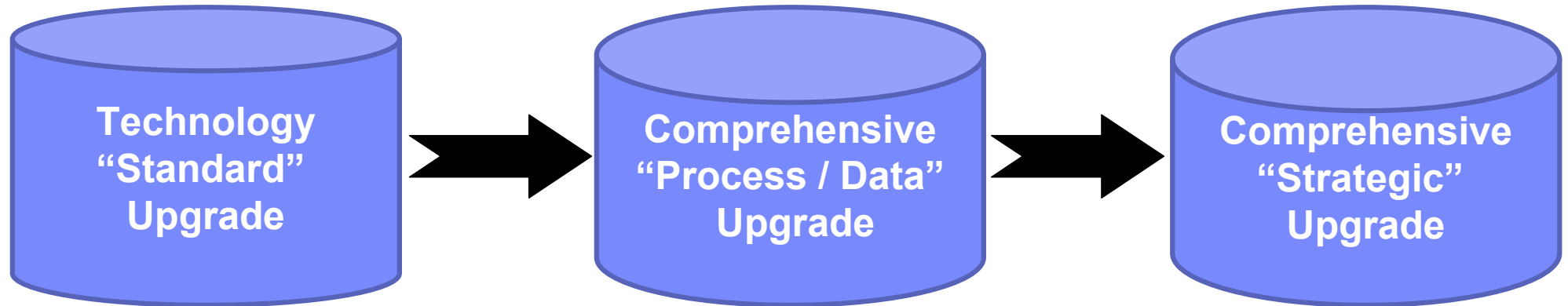- Asset Templates
- Repair Facilities
- Linear Visual Control
- Job Plan and PO Revisioning
- Scheduler, and Graphical Assignment, Crew Support
- HS&E
- PM Forecasting
- Inventory usage
- LIFO/FIFO Costing
- Invoice Reversals
- Receipting Tolerances
- Multiple Org Shipping Addresses
- More enhancements across Related Records, Consignment records, PR, PO, Receiving, Rotating Item return, RFQ…

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Features	Maximo 6.2	Maximo 7.1	Maximo 7.5
Work and Asset Management	X	X	X
Configuration applications	X	X	X
Enhanced Reporting	X	X	X
Materials Management	X	X	X
Workflow	X	X	X
Web Services		X	X
Launch in Context		X	X
Migration Manager		X	X
Conditional Expression Manager		X	X
Attached Documents at task level		X	X
Full Supply Chain Capability			X
Standard technology platform for the entire family of products			X
Application-based data Import/Export			X
Asset Templates			X
PM Forecasting			X
Automation Scripts			X

Planning: **Choosing and Upgrade Strategy**

Technology "Standard" Upgrade → **Comprehensive "Process / Data" Upgrade** → **Comprehensive "Strategic" Upgrade**

- Fastest among all approaches
- Constant functional perimeter with minor user interface changes
- Opportunity to eliminate "not used" modifications and enhancements
- No new business functionality

- Built on technology upgrade
- Provides opportunity to implement additional/ new functionalities
- Opportunity to converge disparate systems
- Opportunity to reengineer business processes and eliminate unused enhancements
- Data cleansing often in scope
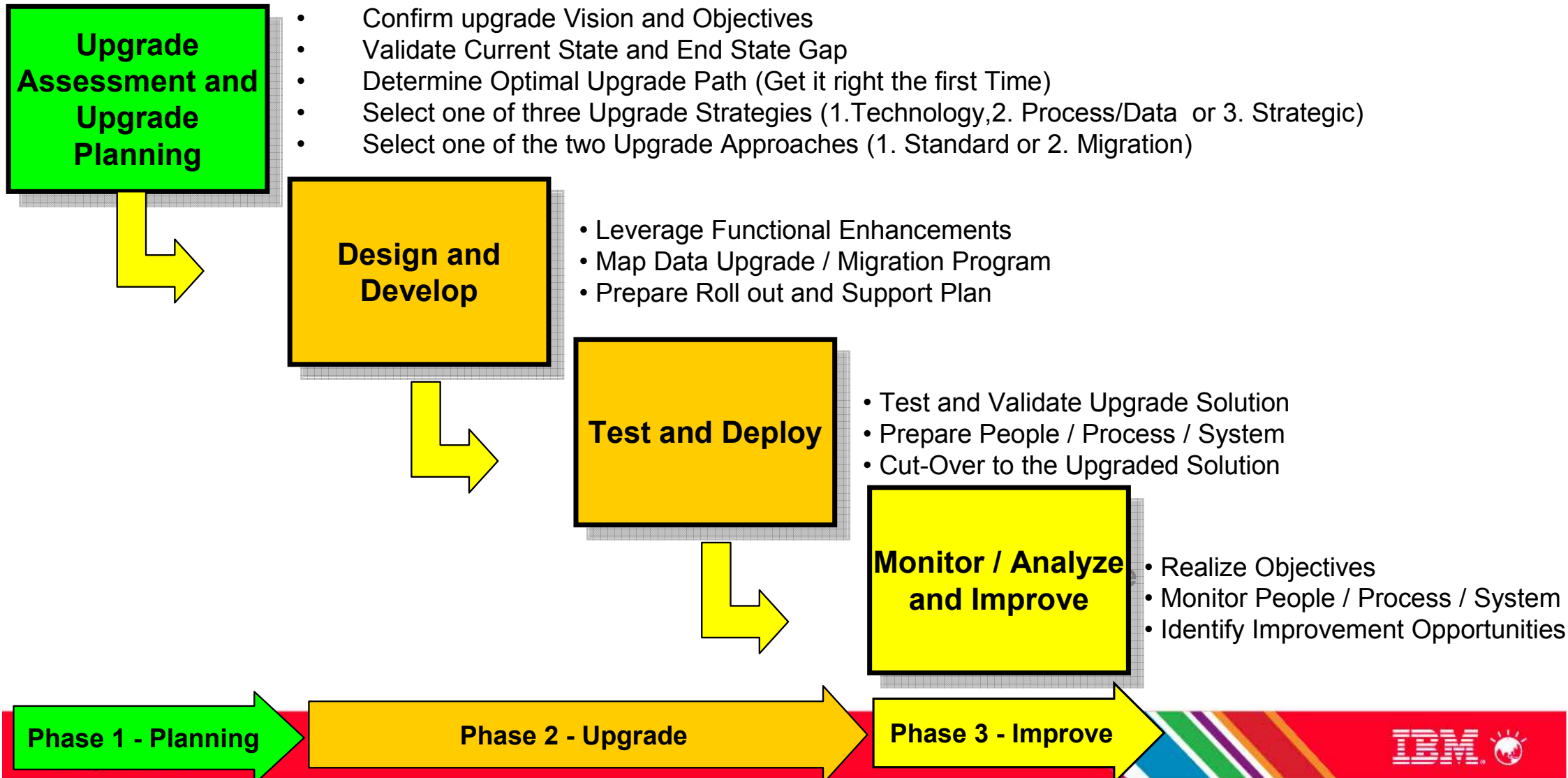
- Heavily leverage new features & functions
- Provides flexibility to business process innovation
- Represents significant technology improvements
- Larger investment with ability to Maximise ROI

Average Duration 2-5 months   *Average duration 4-12 months*   *Average duration 9-18 months*

Planning: **Overall IBM GBS Upgrade Process**

Upgrade Assessment and Upgrade Planning

- Confirm upgrade Vision and Objectives
- Validate Current State and End State Gap
- Determine Optimal Upgrade Path (Get it right the first Time)
- Select one of three Upgrade Strategies (1.Technology, 2. Process/Data or 3. Strategic)
- Select one of the two Upgrade Approaches (1. Standard or 2. Migration)

Design and Develop

- Leverage Functional Enhancements
- Map Data Upgrade / Migration Program
- Prepare Roll out and Support Plan

Test and Deploy

- Test and Validate Upgrade Solution
- Prepare People / Process / System
- Cut-Over to the Upgraded Solution

Monitor / Analyze and Improve

- Realize Objectives
- Monitor People / Process / System
- Identify Improvement Opportunities

Phase 1 - Planning → **Phase 2 - Upgrade** → **Phase 3 - Improve**

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- Thorough evaluation of the current Maximo implementation

- Provide high quality assessment results consistently
  - Work with you throughout the upgrade process
  - Utilize a standard set of assessment templates for consistent and measurable results

- Provide analysis of due diligence in arriving at conclusions and estimates

- Select the most Optimal Upgrade Path based on Assessment Results
  - *Get it Right the First Time!*

- Summarizes the technical and functional state of the current Maximo system.

- Used by the client, assessment team and the upgrade team as the baseline for planning.

- Encompasses all facts and assumptions the upgrade plan will be based on.

Current State Assessment Report Contents

1. Upgrade assessment Report Overview
2. Infrastructure Assessment
3. Functional Assessment
4. Site / Organization Review
5. Data Assessment
6. Workflow Analysis
7. Configuration and Infrastructure Review
8. Integrations and Customizations Review
9. Product Add-ons and Services Solutions
10. Reporting Assessment
11. Training Assessment

Outcomes of the Assessment Report

1. Executive Summary
2. Assessment Findings
3. Recommended Solutions
4. Upgrade Approach
5. Implementation Plan / Strategy
   1. Scope
   2. Key Objectives
   3. WBS (High Level)
   4. Milestones
   5. Implementation Team
   6. Timeline
   7. Training

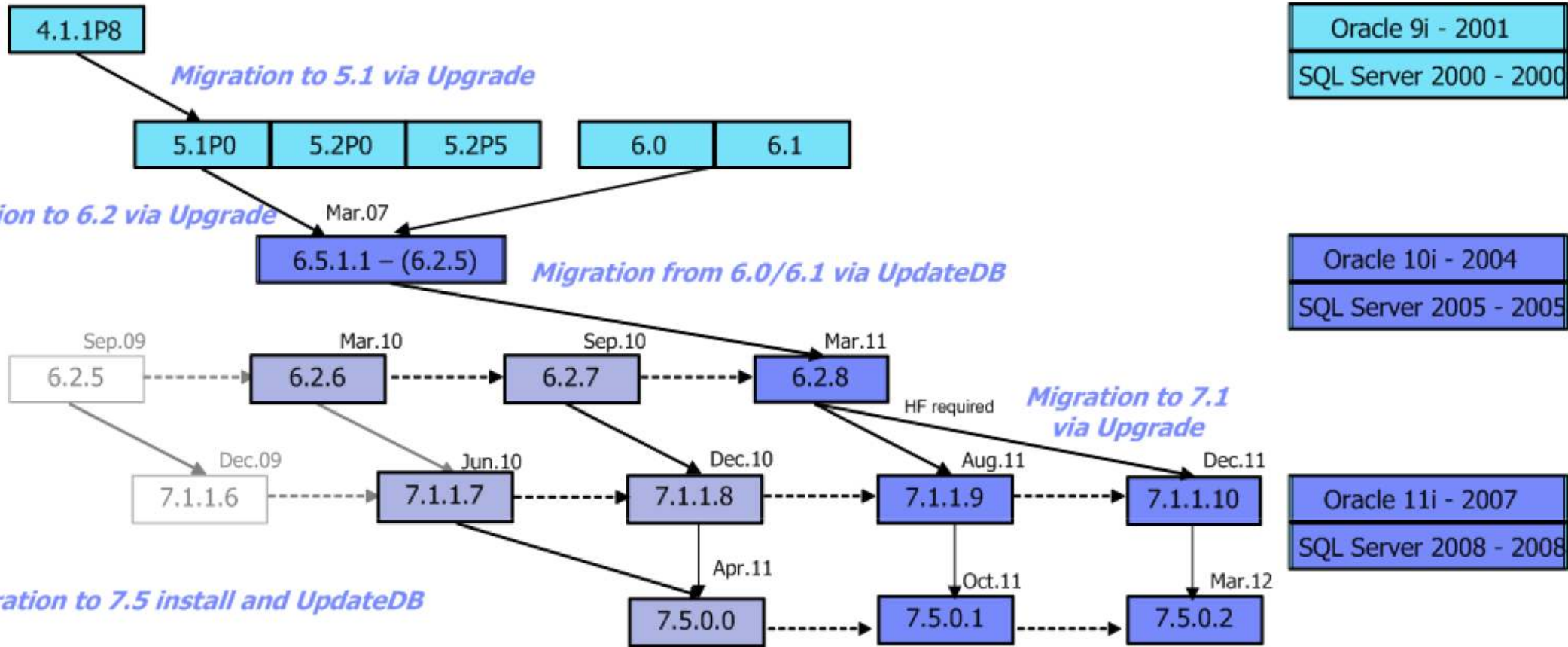# Execution: **Upgrade Approach: Standard Upgrade vs. Migrate**

Standard Upgrade In-situ

- Utilise proven and tested upgrade tools and scripts

- More robust Data Integrity -> reduced ongoing support.

- Requires SI with upgrade experience and tools

- Reduced overall QA effort

Data Migration

- Can seem 'easier' (less specific skillset required)

- MIF validates data well, however in flight transactions (receipts etc.) can cause ongoing data integrity issues

- Higher QA effort -> Detailed data reconciliation becomes a focus.

- Aligns well to upgrades which already have system consolidation scope.

- Attractive option v5 or earlier if upgrade skills/resources not available.
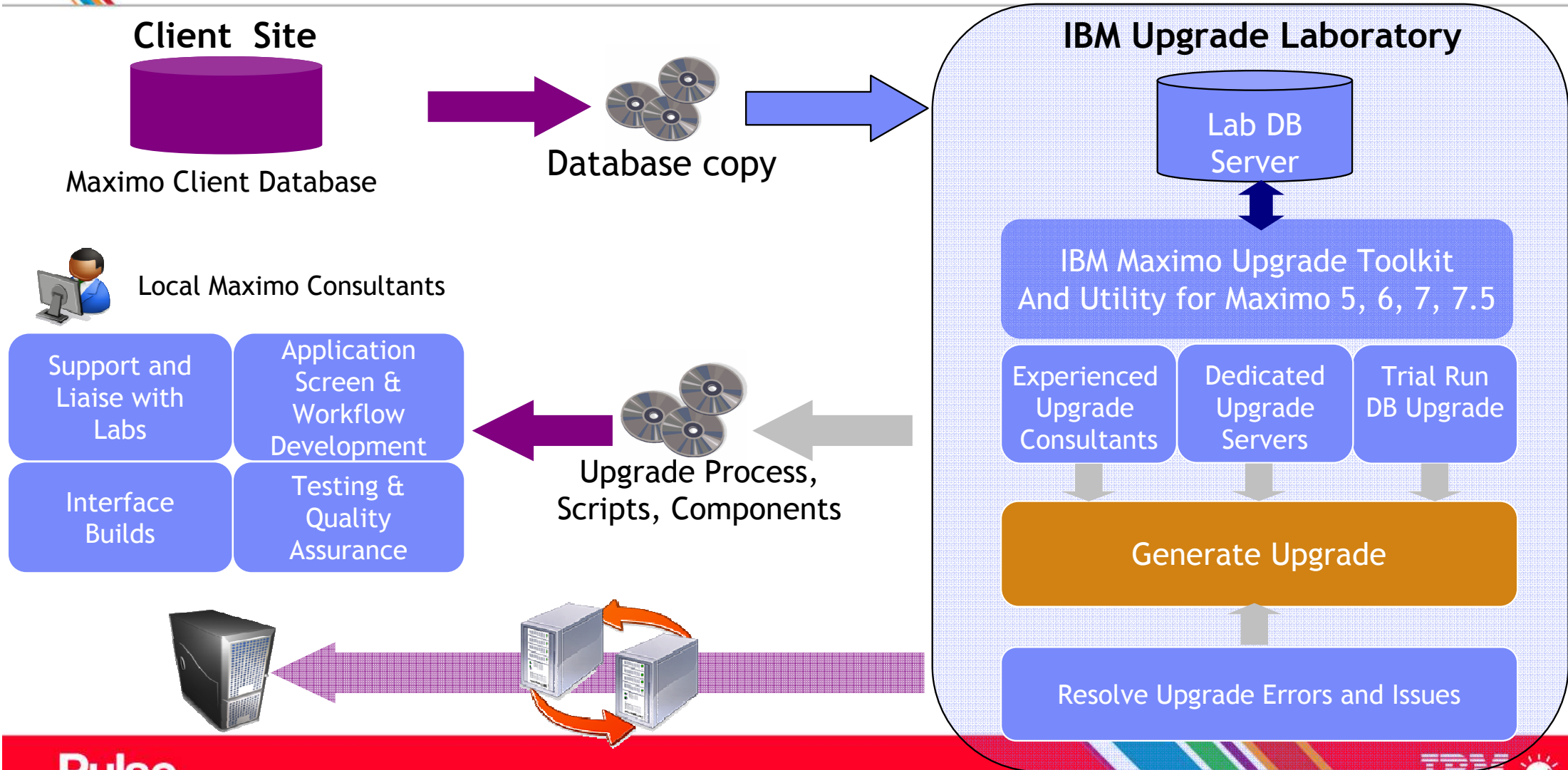
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Execution: **Leveraging the GBS Upgrade Laboratory**

- Unique IBM GBS offering based in the US.

- 30 upgrades around the world completed since lab inception.

- IBM Upgrade Lab resources are the same resources that wrote the process for the technical upgrade scripts available through IBM Tivoli to all customers and third party suppliers.

- Reduced expenses (all technical DB upgrade work performed remotely).

- No added on-site H/W costs (leverages remote IBM equipment).

- Optimal performance (high end IBM servers utilized).

- IBM upgrade SME assigned (this is all they do).

- Faster issue resolution (IBM developers and/or support staff can quickly resolve issues).

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Execution: **Leveraging the GBS Upgrade Laboratory**

Client Site

Maximo Client Database

Database copy

Local Maximo Consultants

Support and Liaise with Labs	Application Screen & Workflow Development
Interface Builds	Testing & Quality Assurance

Upgrade Process, Scripts, Components

IBM Upgrade Laboratory

Lab DB Server

IBM Maximo Upgrade Toolkit And Utility for Maximo 5, 6, 7, 7.5

Experienced Upgrade Consultants	Dedicated Upgrade Servers	Trial Run DB Upgrade

Generate Upgrade

Resolve Upgrade Errors and Issues

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Execution: **Components and Stages**

Environments and Infrastructure
- Final Infrastructure Plan
- Build new environments (required for v7.5)

Trial Run
- First pass of Maximo database upgrade
- Issue tracking and resolution
- Develop scripts and configurations as required
- Data Cleansing as required
- Most time consuming phase

Analysis & Design
- Scoping workshops to assess data and process requirements (Leverage Assessment work).
- Perform Process & Functional Gap Analysis and Resolution (Depending on Upgrade Strategy)
- Solution architecture finalisation

Development
- Upgrade/Migrate Application XML's, Workflow, Interfaces, Customisations
- Unit testing

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Execution: **Components and Stages**

Data Migration
- Execute Data migration Scripts (if required)
- Enter additional data

Training and Change Management
- Trainer and End User Training
- Organisational Change management

QA
- System Testing, Integration Testing

Dry Run
- Final Dress Rehearsal of Upgrade Scripts and Process
- Final User Acceptance Testing

Live Upgrade
- Final go-live preparation & execution

Post go-live support
- Immediate "Over-the-Shoulder"
- Hypercare support and stabilisation
- Ongoing Monitor/Analyse period – Performance Monitoring and Tuning

Summary of Upgrade Tips & Lessons Learnt

- Select the right upgrade strategy to suit your business needs & circumstances.
- Estimate testing and QA Effort in proportion with level of your existing configuration & customisation.
- Be clear on definition of "like for like".
- Ensure you are clear on business process change and impact.
- Be clear & realistic about BAU resource availability & commitment for project involvement.
- Have a clear project management and risk/issues/task tracking methodology in proportion to the complexity of the project.
- Choose a Implementation partner with a proven track record.
- Ongoing: Apply Fix packs often – define a strategy and budget – build repeatable QA process.

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Questions?