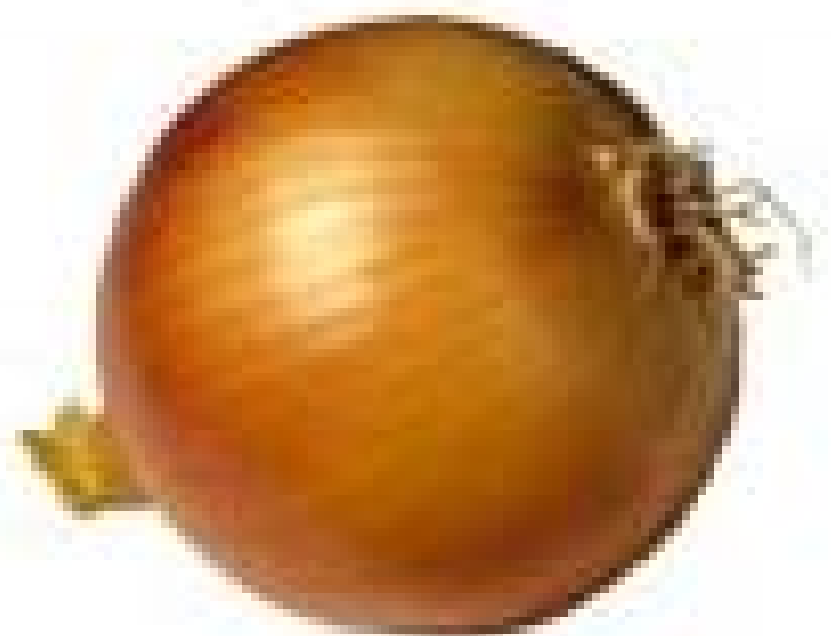


Stranger in a Strange Land

The IT Professional in the Outsourced Project



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What Outsourcing Is

- Sending work outside, with variations like...
 - Outsource development, retain testing in-house
 - Outsource development, testing (to one company)
 - Outsource development, testing (to two different companies)
 - Outsource development and/or testing (each to multiple companies)
- Management may be hands-on or hands-off
- Location may be across hall, across street, across town, across country, or across globe



Corporate Reasons for Outsourcing

Spoken

readily acknowledged

- Labor and other cost savings
- Expertise, capital equipment, geographical advantages of outsource organization
- System/product certification
- Inability to handle work in-house (temporary spike or one-off project)

Unspoken

possibly present, oft-denied

- Organizational or peer pressure on decision-makers to outsource (everybody's doing it)
- Dissatisfaction with in-house ability, service, cost, attitude, quality, etc. (couldn't be worse, at least it's cheaper)

Gartner Group calls outsourcing an “irreversible megatrend.” So, love it or hate it, outsourcing is here to stay, for reasons fair or foul. Our choices: Be on the train, in front of it, or change careers.



Peeling the Outsourcing Onion

- Organize for success
- Understand lifecycle implications
- Select the test partner
- Take quality beyond CMM
- Plan and execute logistics
- Plan for and manage the risks
- Be there
- Adapt to the cultures
- Maintain focus



Organize for Success

- Chaos does not scale!
- Most of the enablers of “agile methodologies” will not be present on outsource projects
- You can't count on chance e-mails, hallway discussions to give the team information, clues
- Outsourcing greatly increases project complexity
- Like any complex human endeavor, careful planning, precise organization, and closely tracked and managed execution are key



Mapping, Integrating, Standardizing

- Across the project, approaches must mesh
 - Map related, upstream/downstream processes
 - Integrate carefully at touchpoints, hand-offs
- Standard glossaries, processes, templates, tools, and information repositories help, but...
- Keep it simple, applying...
 - Occam's Razor
 - The 80/20 Rule

...Now up to now my plan went alright
Until we tried to put it all together one night
That's when we noticed that something was
definitely wrong
The transmission was a 53
The motor turned out to be a 73
And when we tried to put in the bolts all the holes
were gone
So we drilled it out so that it would fit
And with a little bit of help from a a-dapter kit
We had that engine running just like a song
Now the headlights was another sight
We had one on the left and two on the right
But when we pulled out the switch all three of
them came on...
I got it one piece at a time
And it didn't cost me a dime
"One Piece at a Time," Johnny Cash's hit song
about the "free" Cadillac built from "spare parts"

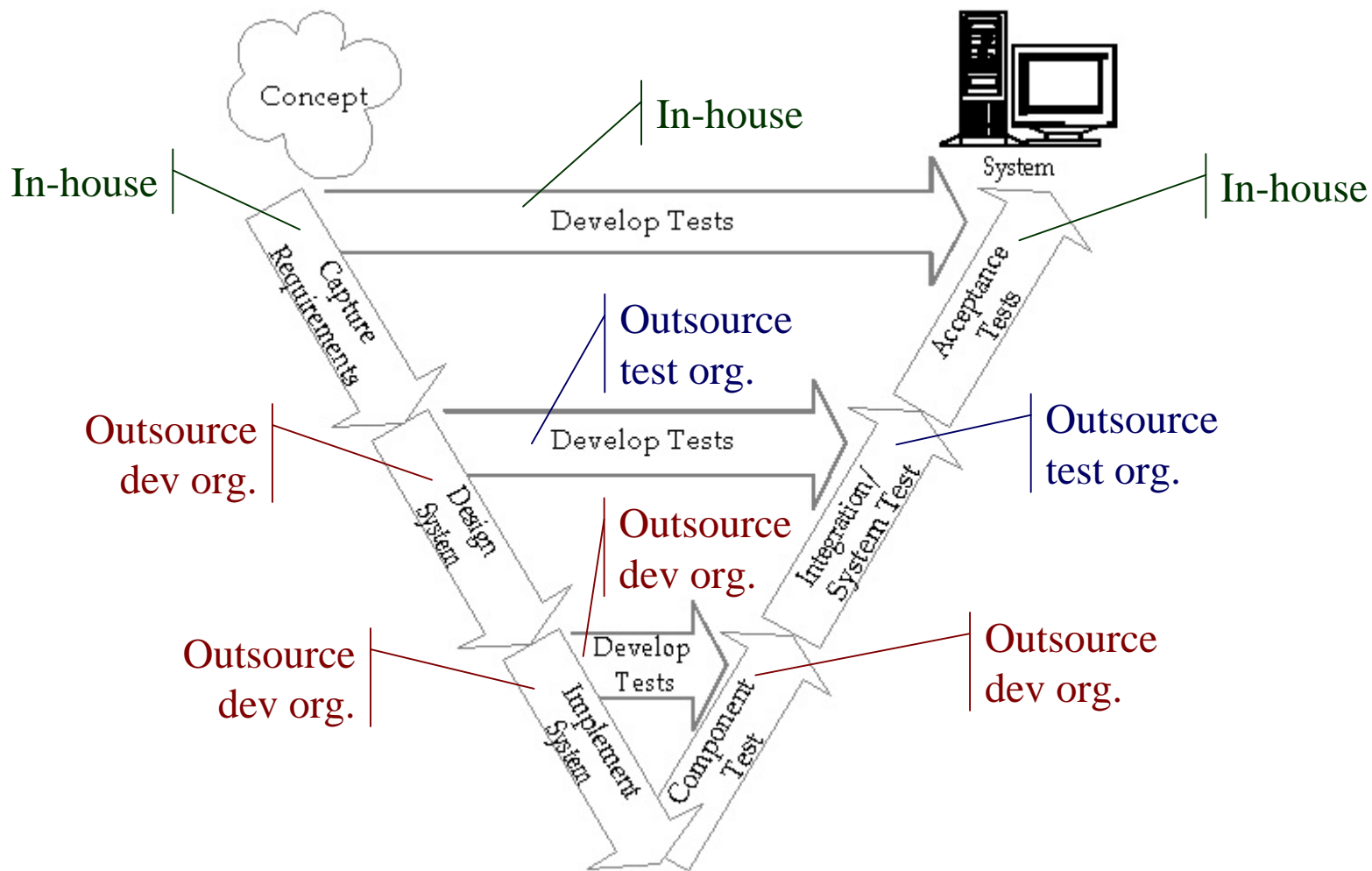


Understand Lifecycle Implications

- The chosen development or maintenance lifecycle processes should...
 - Allow for distribution of work
 - Provide for checkpoints, course-correction at regular, predictable, reasonable (not too frequent or too infrequent) intervals
 - Reduce complexity in hand-offs, touchpoints, communications, change management, etc.
- Unsuitable or cumbersome lifecycle processes can complicate, delay, or entirely block work on outsource projects



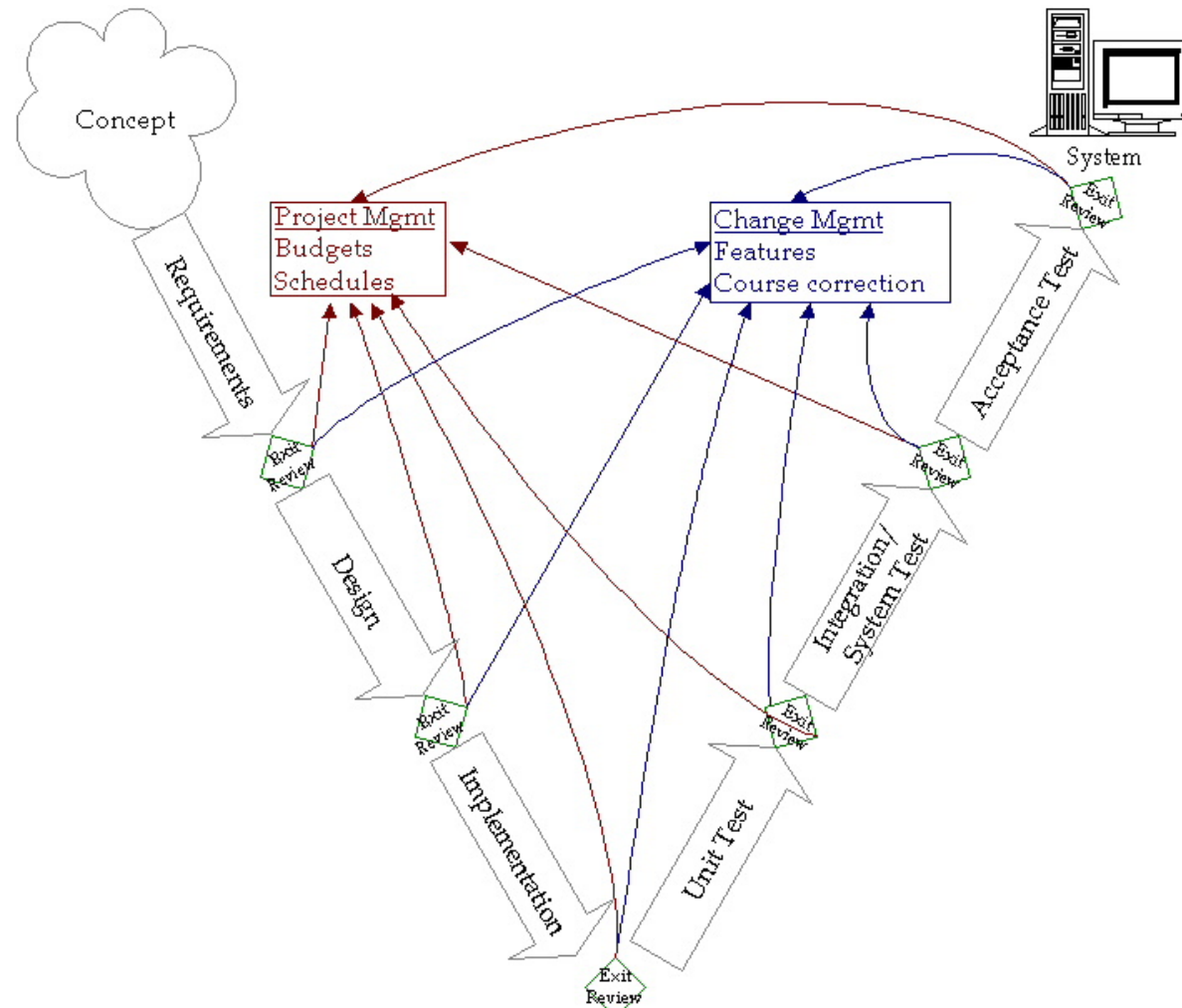
V-Model: Carving Up the Work



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V-Model: Project, Change Management



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Select the Test Partner

- Testing plays a key gate-keeping – and early-warning-system – role
- Outsource testing success requires...
 - Right testers with right skills (incl. test mgmt.)
 - Right equipment, tools, infrastructure, etc.
 - Ability to adapt (to project, organization, etc.)
 - Ability to tell the straight truth about the results
- Two really risky outsource testing assumptions:
 - Development organization can (and will) test competently
 - Acceptance testing will suffice to prevent disastrous releases
- What is the likelihood and impact of these assumptions being invalid???



The Fox Guards the Henhouse?

- Conflicts of interest occur when the developing organization tests its own work or hires the test partner
 - Independence is compromised
 - Fresh perspectives are not always available
 - Financial incentives can work against you
 - Acceptance testing of the deliverable is necessary but not sufficient
- There are plenty of cheap, geographically convenient, *and* independent test labs
- The modest increase in project cost and complexity is worth the peace of mind and reduced risk



Take Quality Beyond CMM

- Process formalization programs such as CMM can result in quality improvement
- However, even Bill Curtis of the Software Engineering Institute admitted (at ASM/SM 2002 conference) that, when used purely as a marketing device, CMM does not result in significant quality or efficiency improvements
- CMM does not say much about testing
- Even a CMM Level 5 organization can score low in test maturity



Plan and Execute Logistics

- The system being built
 - Code, supporting files
 - Change management (incl project implications)
- The test system
 - Test environments (incl. cohabiting software, affected/linked systems or databases, etc.)
 - Testware (test data, cases, designs, etc.)
 - Test processes
- Information flows
 - Project documents
 - Quality risk assessments
 - Estimates and plans
 - Work assignments
 - Bug reports
 - Test status

Organizations running their first outsource project often have logistics problems.



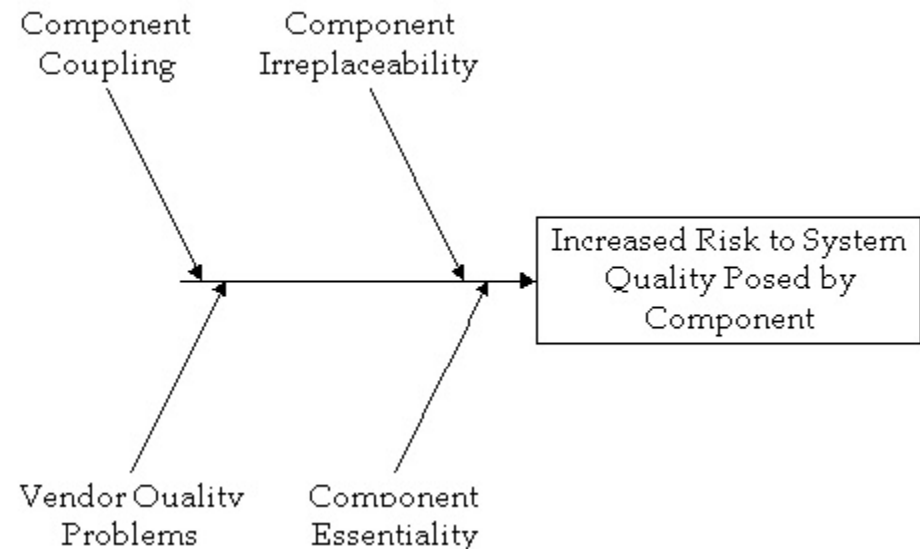
Plan for and Manage the Project Risks

- Project risks on outsourced projects include all the usual ones, plus...
 - Political instability
 - Time zones and other communication issues
 - Infrastructure problems and inadequacies
 - Skills availability
 - Unforeseen organizational weakness (incl. loss of key players)
- Failure of the outsourcing organization to identify and manage these risks at a project level increases the potential consequences



Why Even Partial Outsourcing Carries Risk

- Some organizations believe they are reducing their outsourcing risks by only outsourcing one or two components
- Does that work?
- It depends on how the component affects the system



Coupling: Strong interaction or consequence of failure between component and system

Irreplaceability: Few similar components available

Essential: Key features in system unavailable if component does not work properly

Vendor quality problems: Increased likelihood of a bad component



Being There

- Do you trust people you've never met?
- Is trust important for complex projects?
- Do you hear the whole message when you don't see the speaker's face, hands, and body?
- Conference calls and e-mail work for routine communication
- Sometimes, though, only a visit will do
 - Evaluate the outsource company and their staff
 - Solve thorny problems
 - Build and maintain trust and relationships

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Adapt to the Cultures

- Cultural issues include communication styles, perspectives, priorities, and values
- These will differ among the outsource partners
 - Personalities of team members
 - Leadership skills of managers
 - Integrity of perceived technical and moral leaders of partners
 - The mission the teams serve
- The best approach for IT professionals is to adapt



Maintain Focus

- During the project, focus on...
 - Building the deliverables, testing them, gathering results, reporting useful information
 - Keeping communication channels open and clear
 - Course correcting
 - Resolving unforeseen problems
 - Managing change
- Don't be distracted by...
 - A petty conflict or turf battle
 - A one-time crisis
 - A minor difference in definitions, approaches, etc.



Conclusions

- Outsourcing is here to stay
- IT professionals can succeed on outsource projects by peeling the outsource onion, resolving challenges that arise
- Outsourcing might be cheaper than doing projects in-house, but it's harder, much more complex, and thus riskier
- Testing can help manage that risk