Proposed agenda

Item	Time
Update on progress, current state, decisions, etc. – CCB/RMO relative scopes, transition, plans to address release gaps, board realignment – IT CM policy: Current state, CCSS-IT transition/compliance, RM in/out – Proposed C3 change standards: agreements, communications, materials – CCB-specific deliverables; other deliverables as set out last time – Visibility of issues and efforts at IT Sr Staff Steering?	5 min
Critical Success Factors: Change Control 1.0 versus 2.0 – 1.0 issues pre-Steve Gordon (low internal commitment level, lack of strong sponsorship) & post (internal – highly skilled – resources committed, visible program, strong sponsorship) – Spring 2008 efforts (resource unavailability, iterative localized effort but significant broader issues) – What will be different this time? (Melissa available less…greater internal commitments? Strong participants? Senior sponsorship? Visibility of the issues?)	5 min
Goals: What do you actually want to accomplish? – Transition of role/scope boundary changes with RMO? – Risk/impact assessment continuation: RE or release as well? – Board realignment (release SCB, Synergy CB, TS CCB,…)? – Release-related gaps (almost all of the issues noted have release process aspects)? – ARB role/scope changes? – Tools – starting with raising the issue to senior sponsors and getting agreement on direction? – Policy: CCSS-IT wide compliance and transition?	10 min
Resources: What will be different this time? – Coverage/roles needed, when, how much, any gaps – Close on next steps	10 min

Team needed

Role	Activities	Who	Commitment
Team Owner	Own the outcome, make key decisions, help raise issues, engage with sponsors, additional stakeholders as needed. Ensure resources committed per plan	Stephen	???
Program Management	Define schedule, resource plan, track progress, open items, key issues, actions needed, etc.	Igal?	25-50% needed?
Advisory Consultant	Propose priorities, owners, actions, decisions needed, recommendations at a high-level across the program, suggest agendas for sponsor discussions, guide development of key materials across the program	Melissa	15 hrs/week
Change Management Board Owner	Drive decisions regarding changes to CCB processes, create/revise materials to support revised processes, train CCB board members (standing, on-deck)	Iain Campbell	25%+ (for program, not day-to-day execution)
Release Management	Drive decisions regarding relative roles/scope/ownership between CM and RM, coordinate transitions w/board structures, drive RM-owned issue resolution	Toni VanWinkle	Depends on scope…many issues RM related
Change Risk Assessment	Support transition to self-assessment. Drive resolution around risk/impact assessment for release changes. Create related materials.	Jenny B.	25% on non-operational role
IT CM Policy	Depends on scope/current state	Charlie Martin	Depends
Policy Compliance	Depends on scope/current state – across CCSS-IT	Lisa / Nisfan	Depends
ARB Engagement	Obtain agreement on criteria requiring ARB review, update ARB materials (website) accordingly, communicate changes	Trey Morris	25% until materials complete (ST)
Additional Support	Support items not owned above – training materials development, training plan/delivery, in-flight transition, web site(s) if needed, etc.	??? Shortfalls on yellow items above, and items not covered at left	

Decisions and next steps today

- Do we know the intended scope? Is that the right scope? Is there a long-term vision?
- Do we know what resources we will need for that scope (short/long term)? Do we have them?
- Do we know the sponsorship we need? How supportive will they be?
- Will the program be set up for success given those things?
- What else do we need to discuss to go forward?

May transition package follows

TS Change Control Program Transition Document

Gaps, proposed standards, and other looming issues, related to effective change management for CCSS-IT systems

May 23, 2008

Melissa Liu

Purpose of this document

- Melissa will transition off this program as of May 23 (this meeting date)
- This presentation was pulled together to meet two basic needs:
  - Wrap up the hand-off of team program management from Melissa to Igal for items within scope of the TS change effort
  - Discuss cross-organization issues uncovered as part of TS Change Control program that were not in program scope
- This document includes identified actions and decisions needed along both dimensions

Program scope and goals

- Goal: Streamline and improve the quality of the TS change control process
  - Better decisions with more information in less time
  - Better coordination with other groups making changes
  - IT CM Policy compliance (and revisions needed)
- In scope:
  - Processes to control changes to systems and infrastructure owned by I2R IT or overseen by TS CCB
- Not in scope:
  - Non-TS-impacting systems, overall CCSS-IT change control processes, overall CCSS-IT release processes, boundaries between release management and change control, interactions with other boards and forums within overall CCSS-IT,…
- But, we also encountered critical problems not within our scope that add confusion and gaps to the overall change processes

Outline of the rest of the document

- Cross-CCSS-IT Change Management issues (outside of program scope)
- IT CM Policy – Proposed CCSS-IT response
- Common change standards for shared C3 platform
- Other TS Change Control 2.0 program transition material

Cross-CCSS-IT Change Management Issues

Summarized list of issues

Recommendations

Proposed distinctions between release management and change control, including areas of ownership

Evolution of change management within CCSS-IT

Suggested initial steps

Critical, cross-organizational gaps in change and release processes within CCSS-IT

1. Overlaps and confusion about boundaries, roles, and accountability between release management and production change control processes
2. Confusing, overlapping board and change process structures, with unclear ownership and accountability among them
3. Poor documentation of process(es) to follow in any given situation and expectations with respect to documentation for each process
4. Insufficient system change documentation, at multiple levels, to know what has changed and to validate that required approvals were obtained
5. Highly-fragmented tools environment insufficient to meet process and policy needs
6. No clear accountability for overall release quality; inadequate change impact assessment (to downstream systems, to the business, etc.); no clear link from release-level-impact to release-level test planning
7. More change control review of small, tactical changes than initiatives
8. High number of late de-scopes followed by hurried out-of-release efforts to appease the business, symptomatic of overloaded staff

Proposed process breakdown between release management, production change processes

	Release Management Process	Production Change Control Process
Scope of Authority	• **Owns release scope:** adds, changes, deletes • **Owns release-level impact assessment**: includes impact of scoped items on **existing production environment** AND **impact to the business of scoped changes** (take ownership of those from CCB) • Tracks identification and resolution of **actions needed to close impact assessment gaps** – ensures quality, IT, or business functions take the actions needed to close the gaps • **Owns impact of scoped changes on key programs** (e.g., Synergy) • Owns the **overall quality of the release**	• Owns approval of all **non-release items**: release exceptions, infrastructure changes, EBF post-deployment review, boundary system change control • Owns assessment of whether changes in scope of review are **on path to reasonable assurance of quality outcome** • Owns assessment **impact on the business** for changes in scope of review • Owns **impact of changes on key programs** (e.g., Synergy – would require additional representation)
Required Enablers	**Must have authority to say "No"**: ability to reject or redirect scope changes not meeting criteria at any given milestone Must define **ownership**, **process**, **skills**, and **role(s)** for release-level impact assessment (to Production, to Biz) – and **must ensure that required actions** (e.g., expanded testing) **are actually taken**	Must define **role/process for pre-review and triage** of all changes in scope Must define role/process for taking active role in **ensuring EBF changes are brought for post-deployment review** Must implement better tracking of decision history (better audit trail)

Natural evolution of change management for CCSS-IT

Example

2006

- No TS change control outside of C3
- Little actual control over C3 changes
- No control over and little visibility into infrastructure changes impacting TS
- Massive systems instability

Inconsistent and non-existent change control, with resulting stability issues

The current team has been focused on this transition

Now

- Mostly consistent change processes for TS systems
- *Some* authority over other TS-impacting changes
- Inconsistent standards and processes for C3 changes by other teams
- Process inefficiencies
- Open issues with change quality
- Variation in processes and degree of rigor across CCSS-IT

Localized change control process consistency; stability improvements at a cost of process overhead

Jul 08

- Consistent standards for all C3 changes (TS/non-TS)
- Streamlined change processes for TS
- Migration toward compliance with (to-be-revised) IT CM Policy
- Beginnings of agreement on vision toward CCSS-IT change framework
- Some initial steps toward consistency in change and release processes

Streamlined TS change processes that conform to standard IT change control policy

Dec 08?

- Defined and agreed relationship between release management and change processes
- Defined and agreed board structure, including scope and responsibility for each
- Defined framework for CCSS-IT change control
- Continued phased-in compliance to IT CM Policy
- Beginnings of migration to consistent processes where possible, desirable
- Identification of long-term tools solution to meet change and release management needs
- Improved cross-system and intra-release impact assessment

Consistent framework for change control across CCSS-IT; integrated change board structure defined

Suggested next steps – Cross-CCSS-IT issues

Action	Owner	Participating Functions
Initiate a series of discussions on to define boundaries, scope of responsibilities, accountability – and actions needed to drive changes – for relative roles of change control and release management	Toni and Iain	CCB, RMO, Sox
Initiate a series of discussions to clarify boundaries, roles, scope, accountability for the various boards managing changes for CCSS-IT systems	Toni and Iain	RMO, CCB, Synergy SCB, RMO release SCBs, Sox
Define accountability for release impact assessment and overall release-level quality. Define roles needed, release process milestone(s) needed, link from release-impact to release level test planning	Toni	Requires technical, architectural skill-set for the assessments – AND would need to drive QA planning at release level Partic: RMO, CCB, QA, Arch
Define accountability for overall release outcome	Toni	RMO, CCB, QA – possibly IT Sr Leadership Steering Comm
Define a plan toward a standard release/change tool-set that supports the process and policy needs	Tania	RMO, IT (requesters), CCB, QA, Sox

Example CCSS-IT board structure simplification based on RM vs CC responsibilities

CCSS-IT release scope change control board (R-SCB):

- RMO
- Business – BPA
- Business – Other?
- Support – BSOS
- Support – CACO
- Quality – multiple?
- Programs – Synergy
- Sox

*Must have **authority to say "No"** and defined **accountability for overall release outcome***

CCSS-IT production change control board (P-CCB):

- RMO: RM as needed (changes with potential release impact)
- Business: BPA
- Business: Other?
- Support: CACO
- Support: BSOS?
- Quality: Multiple?
- Programs: Synergy (R/E and EBF review)
- Sox (R/E and EBF review)

Expanded system and business scope , but, out of release scope management business

To simplify or focus each board, there could be **multiple** R-SCBs and P-CCBs, each with a specific area of responsibility – as long as the definition enables a **single decision board for every change**

Global IT Change Management Policy – Proposed Response

Proposed response

Next steps

Proposed IT CM Policy revisions to support policy effectiveness and compliance

Aspect	Existing Statement	Issue	Proposed Change
Scope	▪ All <company> IT infrastructure	▪ Some groups with lower priority systems have less mature change practices and may not meet July date ▪ Need is greatest for business critical systems, not all systems equally	▪ P1 systems for initial enforcement period (Q1) ▪ P2 systems for Q2 ▪ "Recommended practices" only for P3+; not enforced within current timeframes
Scope	▪ Production, Test/Stage, DR environments	▪ Only <u>enforced</u> on Production – no insight into compliance issues for other environments ▪ Control over Stage environments is less mature ▪ Different approvals may be applicable for Stage (e.g., RMO vs Accountable Director)	▪ Production-only for initial enforcement period (Q1) ▪ Necessary Stage approvals identified and incorporated into Policy – and enforced – for Q2 ▪ Existing DR environments identified; enforcement plan and timing then identified
Scope	▪ All equipment and resources that are owned or leased by <company> and <u>all providers of service to <company></u>	▪ Some biz groups use ASP services provided by third parties – no insight into or control over their processes	▪ Explicitly exclude ASP situations from scope as system stability and availability is more properly addressed via SLAs with those vendors
Approvals	▪ Director-level approvals required for certain situations; no downward delegation allowed	▪ Accountable director not always available – hinders agility and responsiveness	▪ Allow a single, formally-designated backup approver for each accountable director

Suggested next steps – IT CM Policy

Action	Owner	Participants
Get on agenda for IT Senior Leadership Steering Committee, present the proposed changes, and obtain agreement – **Target May 28 Meeting**	Lisa (Stephen if Lisa already out)	Stephen, Igal, Nisfan
Deliver feedback to IT Global Ops (Charlie Martin) – **Due early June at latest** in order to affect final policy to be released June-end	Stephen**	Stephen, Igal, Nisfan, Wendy
Follow up on delivered feedback and actions being taken to incorporate them	Igal or Nisfan	Stephen, Igal, Nisfan, Wendy
Escalate as needed to get changes into revised policy	Igal or Nisfan to identify if escalation needed Escalation point: Guillermo	Stephen, Igal, Nisfan, Wendy

****Note:** Charlie is expecting the "official" CCSS-IT feedback from Stephen. If someone else is designated to provide the feedback to Charlie, that responsibility will need to be formally communicated to him by either Stephen or Guillermo

Common rules for the shared C3 platform

Context

Agreements

Proposed standards (agreed in principle at 4/24 steering)

Identified impacts to-date

Next steps

Management of changes to shared C3 platform

- Multiple IT groups are now making changes to the C3 platform (I2R Synergy, CSCC, CACO, with AS and more CCIT to come)
  - C3 has now become a shared platform – it is no longer solely a TS platform
- With multiple IT groups now working in C3, there has been a fair amount of pain with respect to change review & delivery
  - Process overhead, inconsistency, gaps in change documentation, confusion over the scope and authority of all the decision boards in play, etc.
- Common standards were proposed to alleviate some of the pain and ensure the completeness of change documentation
  - Implicit in these proposals is a need to find better ways to “triage” which changes are riskier, and what the potential impacts are
  - This triage is needed to ensure impacts are fully discussed – and that low impact changes are not overly burdened by process and reviews
- The team proposed common change rules for C3 at the April 30 IT Senior Leadership Steering Committee
  - The Steering Committee generally agreed with all of the recommendations, but asked for an assessment of impact to affected organizations

Agreements from April 30 IT Senior Leadership Steering Committee meeting

The WOF/Harmonization efforts make C3 a shared platform across CCSS-IT (TS, AS, CCIT)

C3 is both a 24x7 mission-critical system and a SOX system, which means that a high level of change management rigor and complete, accurate change documentation is required

Given these factors and known pain points and issues, we must define common rules and shared philosophy for how we – as one team – manage the risk of changes to the shared platform

Proposed common rules and standards for the shared C3 platform

Proposed Rule	Short-term Solution	Long-term Direction
1. A production **change control board** must approve all changes to C3 and boundary systems	Use the **TS CCB**; may need to add representatives	Rationalize board structure to manage CCSS-IT changes and releases
2. All proposed C3 changes must have **formal change documentation** that meets defined change documentation standards (summary, description, business rationale, timing,…)	Specify the change documentation requirements Train IT PMs and track leads Enforce expectations in change review discussions	Use one standard change tool that enforces required information
3. All C3 application c… the OnePCC proce… **OnePCC EBF proc… changes**	…ommon CCSS-IT standards …r test documentation …vidence; common change tool
4. Any proposed changes not meeting required standards or lead times will not be approved	**Defined escalation path** when TS CCB cannot approve, as below	Refined escalation path based on CCB evolution
5. If a change cannot be approved, due to inadequate information, missed lead-times, or undesired impact, it must be approved by defined escalation approvals	Required escalation approvals: ▪ All **potentially impacted IT directors** ▪ All **potentially impacted business directors** ▪ Changes in **releases**: **CA-RMO** (Toni)	Refined escalation path based on CCB evolution
6. EBFs to C3 require approval of both the **requestor's IT director** and the **C3 platform owner**	Requester's director and Ginna must both authorize EBFs prior to deployment Consider the same for rel. exceptions	Revisit approvals to incorporate other stakeholders as appropriate

This is the master version of the proposed standards – please be sure you are using this version, which has incorporated feedback from multiple sources

Impacts of proposed C3 change standards**

- In general, the proposed standards made sense to affected groups
- Key concerns raised:
  - Documentation of the process and change documentation standards
  - Timing of training and who will need it
  - Relationship to other boards and processes (Synergy board, release scope change boards, etc.)
    - This is a critical issue and is causing confusion for many people
  - Need for designated back-up approvers
  - Timeliness of escalation response when escalation is needed
  - Lack of institutional knowledge of how all the systems fit together – and no role that owns assessing technical impacts of planned changes
  - CSCC straddles C3 and Ciber, but C3 and Ciber changes are handled very differently – and no one owns change control for KPRD
  - It takes too long to get changes through the current processes (release, release exceptions), resulting in P1/EBFs performed to make needed changes quickly

** As of May 21

Implications of impacts and next steps

- Implications:
  - Again, the board structure and relative responsibilities between RM and PCC both need to be clarified and simplified (as mentioned in prior section)
  - In addition to the above, work to simplify the TS CC process must be completed to streamline the process (e.g., requester self-assessment and no ARB for Low items)
  - To be able to actually implement the above process changes, the necessary documentation and training material is required urgently
  - The combination of the above will improve agility and reduce unneeded overhead
    - Only one CCSS-IT board for any given change!
  - Next steps follow (excluding items mentioned in the prior section)

- Next steps:

Milestone	Timing	Lead/Contact
Common change standards for shared C3 platform defined, impacts identified, and proposed changes agreed – **Target May 28 Steering** for decision	May-end	IT Sr Leadership Steering Committee (agreement) Igal & Lisa (proposed standards)
Documentation and training material created/revised for C3 change processes and CCB execution	June-end	Igal Zadkovsky (PM)
Training delivered to IT PMs, IT track leads, IT mgrs; new process in place	July-end	Igal Zadkovsky (PM)

TS Change Control Team program hand-off

Program review – accomplishments (and work not accomplished)

Key open actions

Proposed timing and key risks

Factors required for success

Wrap-up information

Program review – accomplishments

Track	Accomplished	Not accomplished
Release Processes	▪ Obtained agreement on method to triage changes into risk levels – *AND* handle them accordingly (ARB, CCB) ▪ Used approach in various review forums	▪ Finished the documentation and training material, trained, launched
Decision Processes	▪ Drafted CCB roles, decision criteria, escalations, expectations, etc. ▪ Used pre-review approach and high vs low risk assessments to identify which changes to focus on in review and decision mtgs	▪ Socialized, finalized, and released the documentation ▪ Finalized approach into standard operating procedure; formally defined any pre-review approach for future decision meetings
Change Review and Assessment	▪ Changed the RA process to drive more useful information into decision forums ▪ Used "change triage" philosophy to more effectively review and approve changes ▪ Defined self-assessment process and evolution of risk analyst role	▪ Formalized the process into revised documentation and official process ▪ Completed transition of the risk analyst / audit role to self-assessment w/audit ▪ Defined standard release impact assessment process, per ICS audit and March release process gaps
Policies, Standards, Documentation, and Training	▪ Discussed the IT CM policy variety of CCSS-IT folks and drafted a response ▪ Defined proposed common rules for shared C3 platform	▪ Formalized and provided feedback to IT G-Ops ▪ Formalized agreement and communicated C3 change standards
Program	▪ Organized the program, defined priorities, drove initial development work	▪ Gotten formal resource commitment for ANY team members ▪ Defined detailed plan and schedule that is actually "committable"

Key open actions by thread

Thread	Actions / Owners
Release Processes	▪ Socialize planned self-assessment and governance approach with additional stakeholders (Atul, Diane, Jenny) ▪ Define ARB review approach for project-sized efforts that receive a “Low” risk result – if still ARB reviewed, need formal definition of “project” vs “tactical” (Trey) ▪ For launch: Incorporate self-assessment for all tracks, incl. AS, CSCC (Diane) ▪ Add release milestone re: release-level impact assessment, per ICS audit, and to address problems like those in March release (Diane, Toni) ▪ Document and communicate QA information needs re: biz requirements, func spec (Sreekanth) ▪ Identify potential improvements to test planning for tacticals (Sreekanth, Sri, Atul) ▪ Identify potential improvements to gate-keeping, particularly for UAT (Priya, Lisa , Jenny) ▪ Define and communicate common standards for Sox gatekeeping (Lisa) ▪ Make sure ARB engagement model is clear for stakeholders, e.g., CSCC (Diane, Trey, David)
Decision Processes	▪ Finish the draft materials, socialize, and release (Iain) ▪ Update CCB wiki accordingly (Wendy) ▪ Train board members – current and to-be-rotated (Iain)
Change Review and Assessment	▪ Identify roll-out plan for new risk form – TS, CSCC, AS (Diane, Jenny, Iain, Trey) ▪ Work with Dan Hutton on C3 BL impact identification (Iain, Jenny)
Policies, Standards, Documentation, and Training	▪ Get agreement on proposed CCSS-IT response to IT CM Policy and deliver it to G-Ops (Stephen) ▪ Incorporate revisions into IT CM Policy (Charlie) ▪ Communicate common standards for changes to C3 platform (Stephen for Ginna?)
Program	▪ Obtain resource commitments for remaining work (Igal) ▪ Define detailed project schedule based on resourcing (Igal) ▪ Drive the remaining work of the program (Igal)

Proposed timing and key risks

Milestone	Timing
Communicate common change standards for shared C3 platform	May-end
Revamp board structure and responsibilities – single, authorized board for every change	June-end
Ensure ownership of new release-level impact assessment process has been defined	June-end
Develop and complete documentation and training material	June-end
Deliver training delivered to IT PMs, IT track leads, IT mgrs; new process in place	July-end
New process in place	**July-end**

- Key risks:
  - No owner or plan has been identified for the larger cross-CCSS-IT issues
  - Timing for agreement on IT CM policy response is NOW – running out of time to affect the final policy (mid-June is latest according to Charlie)
  - Team members all have their “day jobs”; owners of various tasks in the program have been very busy and not able to meet deadlines
  - Resources to develop and revise training materials and other documentation have not yet been identified (or funded)
  - The OnePCC process itself needs streamlining in particular areas; timing and resourcing is unknown
  - No project plan is committable – because no resources are actually “dedicated”

What do you need to do to actually be successful improving these processes?

- Define “CCSS-IT Change Management Improvement” as a major initiative
  - Broad “change management” term includes both RM and CC
- Develop the business case and take it to the business for formal funding
  - Business case developed around increased ability to deliver changes needed by the business and improved release quality outcomes
  - The business is frustrated by work needed to “get stuff through IT” – there is a definite argument for a major initiative to address the issues
  - TS CC 1.0 was able to get resources because it was important to the business and it was taken to the business for funding
- This organization will not be able to make needed changes without a highly-visible, well-resourced initiative to address the problems
  - Resources “named” but not formally allocated will not suffice
  - Don’t bother hiring consultants until there is acknowledged visibility to the problem – and funding to fix it

That's a wrap!

- Documents will be uploaded to the following Livelink location:
  - http://workspace/Livelink/livelink.exe?func=ll&objId=29383748&objAction=browse&sort=name
- A CD will be burned from Melissa's hard drive and given to Stephen and/or Jenny
  - Will move all email to personal folders (.PST) and ensure the .PST file is on the CD as well
- Feel free to contact me if you need any background information or other help:
  - Cell: 408 893 8992
  - Personal email: melissa@da-menehune.com
  - However, I will be out of town May 25-28 (*may* have cell reception)

Backup

C3 Components and Boundary Systems

	C3 Components	Critical Boundary Systems
Defined	Components that use CTSPRD, CTSBLT, CTSPDM, or CSSPRD as a primary database	Components that do not directly use those databases but have the potential to affect them through an interface***
Items in defined scope	• All C3 11i modules (Inv, OM, etc.) • TSRT • SVO • CSE Workbench • CSCC items on CTSPRD • WebTickets • SmartCare • iSurvey • SR-RAT • Install Base • B2B • Backlog • RTRP (real-time reporting) • Warehouse Inventory Tool • XML Gateway • CA Addr Services • Universal Work Queue • CustomerCare • e-Community Gateway • Oracle Projects (Q1)	• SJPROD (manufacturing and finance) • BVPROD (QTC and finance) • QTCPROD (QTC) • ODSPROD (interface mechanism) • ECPROD (E-Customer) • KPRD (Service Contracts)
Control within that scope	**All changes** (applications, data, hardware, OS, patches, etc.). Specific concerns: • What will doing this change accomplish? (end result) • Why is that important? (business rationale) • Are we confident it will work? (risks / impacts known, architectural review conducted, testing conducted,..) • Have we properly documented all of those things?	Changes that have **potential to affect C3**: • Changes to the interface code itself (direct impact to the interfaced system) • Schema changes (potential to affect data pulled/pushed by the interface) • Data record changes (potential to affect the volume of data through the interface) • Non-standard downtime (potential to affect timing of data sent through the interface)

*** See slide notes for examples

Change triage: Applications of interest*

Application	TS Critical? Unstable?	Priority	# of P1/P2 cases
CaseKwery	Critical, Unstable	P1	9
ClickSchedule	Critical, Unstable	P1	9
Software Advisor (Fusion)	Critical, Unstable	P2	11
SVO	Critical, SVO Submit Unstable	P1	8
Topic/Google	Critical, Unstable	P1	22 (on GetWell plan)
B2B	Critical	P1	
CAP	Critical	P2 or P3	
C3	Critical	P1	
COT Admin	Critical	P2	
iSurvey	Critical	P1	
MediaBlender	Critical	P2	
PSIRT	Critical	P1	
SALT/CSCC	Critical	P1	
Selectica	Critical	P1	
SitePublish	Critical	P2	
SMBSA	Critical	P3	
SWC (GLA)	Critical	P1	
TSRT	Critical	P1	
XelusPlan / SPO	Critical	P2	
ISAAC	Critical	P2	
Bug Toolkit (9)	Unstable	P2	9
<company>Live! (9)	Unstable	P2	9
Tablebuild (8)	Unstable	P1	8

* Includes CCSS-IT owned systems only

Streamlining change: Change risk assessment for changes in scope of TS CCB (including C3)

- Degree of change review based on the risk / impact of the change:
  - Low: No detailed review
  - Medium: Some review, all change gates
  - High: Close review, all change gates
- Assumes up-front triage (replacement of current TS risk process)

Change Risk/Impact Dimension #1	Change Risk/Impact Dimension #2
▪ Critical systems (C3, phones, MeetingPlace, …) as defined on the BPA-maintained critical systems list* ▪ Change to boundary system of a critical system ▪ Sox Impact ▪ Low stability ▪ On "watch list" (past path / process deviations)	▪ Schema/data changes ▪ Interface change or impact ▪ Any B2B or B2B-impacting change ▪ Any C3 BL impact ▪ Architectural non-compliance to critical standards (when ready)
One point for any "Yes" on the above items **Max 1 pt** for the overall change dimension	**One point** for any "Yes" on the above items **Max 1 pt** for the overall change dimension

Level Disposition:
0 pts = **Low**
1 pts = **Medium**
2 pts = **High**

* http://ework.<company>.com/Livelink/livelink.exe?func=ll&objId=21813157&objAction=browse&sort=name
(also included in Backup material. Contact: Brent Chapman (BPA)

** See Backup material for C3 boundary systems, overall critical systems list, and current "watch list"

Governance based on change risk assessment and change type

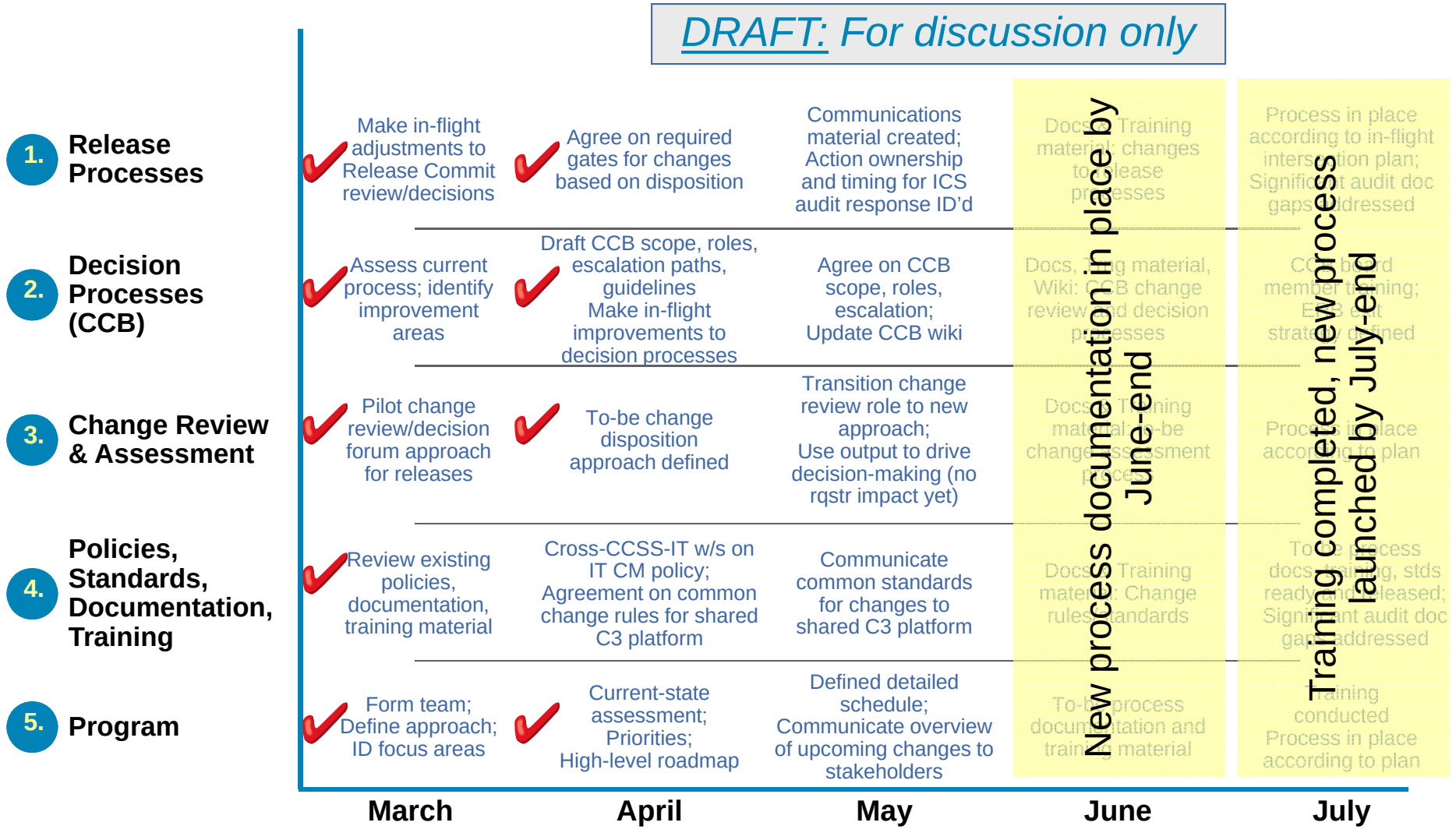
Change Risk / Impact	Disposition
Low Impact Tactical (small, localized, non-project change)	ARB review not required (**ARB still required for all Projects**)** Change not reviewed in detail at release commit, CCB meetings – requester not required to be present
Medium Impact	ARB review required** Changes reviewed in CCB to address any identified questions
High Impact	ARB review required** Changes reviewed closely in CCB, RC

Change Type	Disposition
Bug Fix (any size)	No BRD** No FS unless significant code/logic changes**
Maintenance (any size)	No BRD** No FS unless significant code/logic changes**
Enhancement (any size)	BRD** FS**

**Applies to TS-owned applications only, not Infrastructure and non-TS systems

Rough timing / roadmap

DRAFT: For discussion only



Critical, cross-organizational gaps in change and release processes within CCSS-IT

Identified Gap	Recommended approach
1. Confusion over release management and change control definitions and responsibilities	Formally define responsibility areas, remove overlaps, address gaps
2. Overlapping boards, unclear ownership/accountability	Define cross-CCSS-IT boards (two): one for release scope change control, one for production change control
3. Poor process documentation for requesters to follow	Once above are done, revise documentation, release, train
4. Poor documentation of system changes	Document change documentation standards as part of process documentation effort
5. Fragmented tools environment that doesn't meet needs	Identify initiative to address tools needs, starting with requirements analysis and system selection
6. No ownership of release-level quality, impact assessment	Define as part of solution to items #1 and #2 – and include in documentation and training. Add release-level impact assessment
7. More review of small changes than large initiatives	Address as part of better scope change management and alignment of board responsibilities
8. Scope "churn": late de-scopes and hurried follow-up efforts	Better process and documentation, less overlap/redundancy, clear standards, clear accountability should all help. May require further efforts

Release scope management recommendations

- Consider formally separating scope change management from production change control
  - Institute a single release scope change board for CCSS-IT that includes necessary representation (biz, support orgs, quality)
  - Address need for release-level impact assessment, including impact to Production and to Biz, linked to release-level test planning
  - Ensure the CCSS-IT SCB has the full authority to reject changes
  - THEN (not before), pull TS CCB out of the release scope approval business
    - Remaining scope: release exception, EBF post-deployment review, dependent infrastructure and boundary system change control
- For releases, use release-level impact assessment to triage scope items for review, approval – and action identification
  - But, do migrate requesters to new risk form (self-assessment with audit) so that “Low”-impact tacticals can skip ARB, as agreed
  - Changes outside of releases also need triage mechanism and pre-review

Confusion over “release management” and “change control” terms

- Current situation:
  - “Releases” are bundles of “changes” – various control mechanisms are therefore at both release and change levels
- Better definition:
  - Release Management owns delivery of changes within releases…
  - …including control over changes to the scope of that release
  - Change Control refers to system changes delivered outside of releases (or to boundary systems outside scope of full control)

TS Mission-Critical Systems

Availability and stability of resources to the left of this line are critical to maintain normal operations & confidence

Infrastructure & Foundational	Major impact for repeated minor outages	Major impacts for extended outages *Minor outages manageable*	Moderate impacts for extended outages *Minor outages manageable*	Minor impact for outages
Telephony / Toll-free Access	TSRT – Create	DDTS/CDETS	My Tech Support	ICM Webview
<company> Network/Extranet	SVO Submit / Dispatch / Resolve	CASP (CAP / PSIRT / IntelliShield)	PAWS	iSurvey
CCX	C3 (Core Oracle 11i system)	BW – CprContactRep / Bestmatch / CRES	TSRT – Query	Site Pub
<company>.com	Topic / Google / Vivisimo	MeetingPlace	Xelus Parts/SPO	E-Customer
Email (TAC & <company> Corporate) (CEM)	B2B – CTS / CSC / eProc	TAC website (ISAAC; C3 COT Esc / Admin)	ClickSchedule	<company> Media Blender
	Selectica	SWC (GLA)	SMBSA	Software Advisor
		SALT/CSCC	Case Kwery Tool	

Business Resumption

Note: Customer & Business tolerance for outages varies from low during normal operations, to high tolerance during disasters or other extraordinary situations. "Minor" outages are generally those which are not visible to the Customer and/or do not disrupt the regular business flow (i.e., workarounds not implemented)

TS Critical Processes

L2	Initiate Service Event	Diagnose Issue	Deliver Solution	Determine Root Cause	Validate Resolution	Identify and Implement Learning
L3	**Gather administrative information**	**Appraise situation**	**Confirm and resolve entitlement**		**Confirm customer satisfaction with resolution**	
	Confirm and resolve entitlement	**Describe problem**	**Ensure availability of resources (e.g., people, hardware, software)**		**Request permission to close**	
	Gather general problem information	**Identify possible causes**	**Implement course of action (technical, hardware, software, other)**		**Document issue results**	
	Identify special requirements	**Evaluate possible causes**	**Confirm fulfillment of course of action**		**Close issue**	
	Route issue to indicated organization	**Confirm true cause**				
	Notifications	**Identify course of action and alternatives**				
	Mission Critical	**Validate course of action with customer**				
	Non-Mission Critical					

Process pain points

Summary of critical process pain-points

Process Gaps & Inconsistencies

- Change request documentation is frequently incomplete or not useful
- CSCC changes to C3 environment are only partially compliant with the TS change process
- AS-IT organization sees little value to TS change control process requirements for C3 environment
- Some teams are missing deadlines or expected lead-times and expecting to be allowed to deploy anyway – even when CCB has clearly said “no”
- Believed to be “too much going through the pipe” at once – e.g., Mar, May, Sept releases; number/significance of changes per release
  - March release results may be supporting evidence
- Requesters are coming into change review discussions inadequately prepared to discuss or explain their proposed change
- Release exceptions are not following dictated time windows
- Relative roles, scope, authority between TS CCB and Synergy BAB not always clear
- No change process owner; no measurements around it (effectiveness, efficiency)

Process Overhead / Inefficiencies

- Process to make small (tactical) changes has the highest complaints and overhead
  - Pain is particularly high in monthly releases, due to compressed 4-week cycle
- Risk assessment is pure overhead and information is not being used
  - Recent exception: usage for release commit change review and decision-making
- ARB is not integrated with other processes and people that could benefit
- Change review in CCB and release commit meetings lacks a consistent framework for change evaluation and decision-making
- CCB still struggles to understand / analyze impact of infrastructural changes
- ERB preparation and review takes a fair amount of effort, but its value is questioned
- Business users are complaining about the overhead of gatekeeper / test documentation requirements for UAT
- Release exceptions are sometimes used to avoid release-related “overhead”

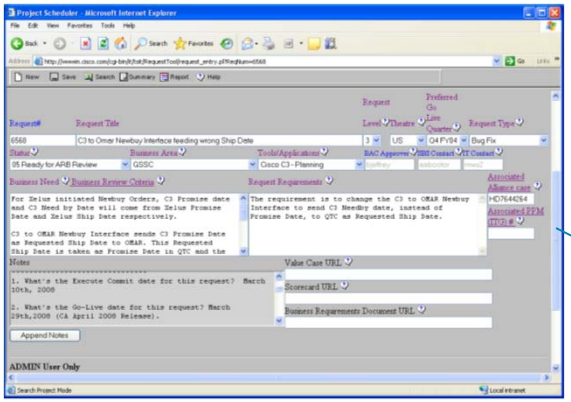
Observations: Tools

The many forms in which Change Requests are initiated…

I2R Request Tool

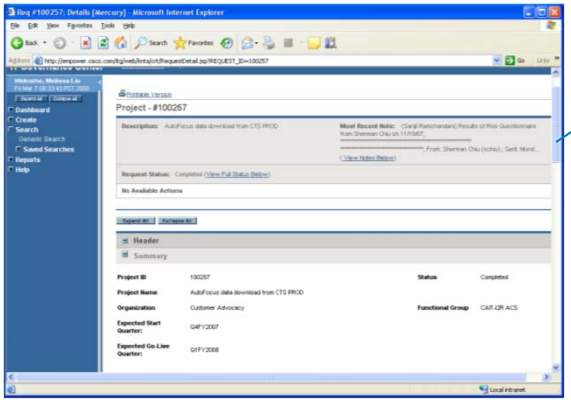
Bug Fixes, Maintenance, Enhancements

All areas except SSM



Empower (Mercury IT Governance Center)

I2R Projects (greater than $50K cost)



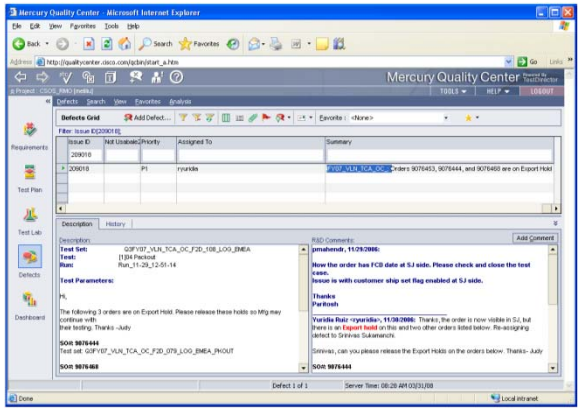
Types of Common Data Elements:

- Title
- Change type
- Description
- Tool being changed
- Approvals required
- Approval status
- Approval workflow – sometimes
- Requester
- Business contact
- Technical contact
- Priority
- Associated cases
- ARB review input and output
- Risk assessment score
- Deployment window
- Technical description
- Business justification / change benefits
- Testing planned
- Possibly – change impacts

Test Director (test tracking system)

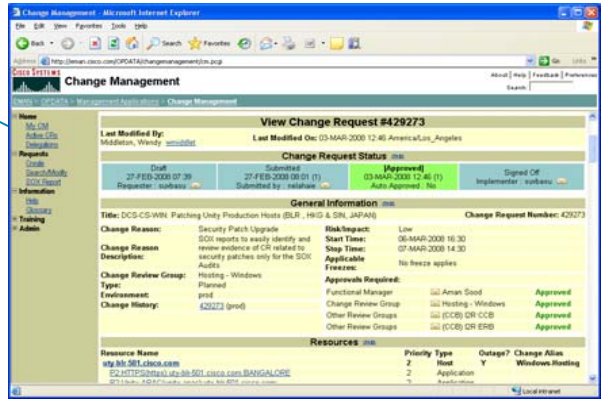
Bug Fixes, Maintenance, Enhancements

SSM



EMAN Change Request Tool

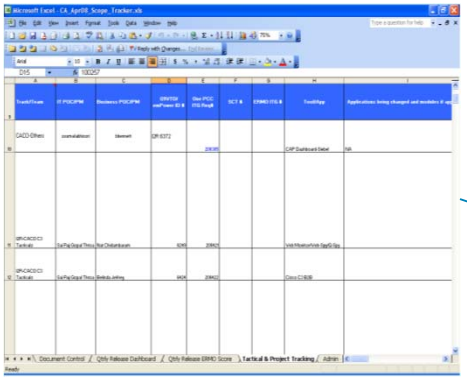
Infrastructure changes + releases + release exceptions + EBFs



…and managed…

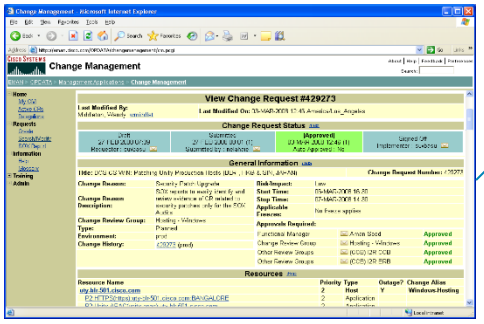
CA-RMO Scope Tracker Excel Worksheet

Change requests for a release



EMAN Change Request Tool

All changes pending approval: Infrastructure, releases, release exceptions

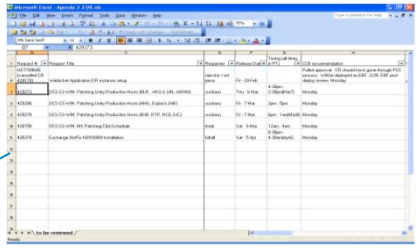


Types of Common Data Elements:

- Change request # (from whichever system)
- Change title
- Change type
- Description
- Requester
- Tool being changed
- Approval status (gates and boards)
- Deployment window
- Business justification
- Technical details
- Potentially: business impact of downtime
- Notable risks or risk score (maybe)
- Business and IT contacts (maybe)
- Dependencies and impacts (maybe)

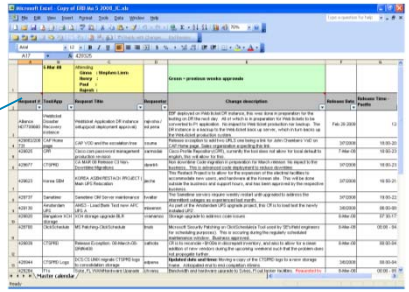
CCB Change Request List

Changes to be reviewed in a particular meeting



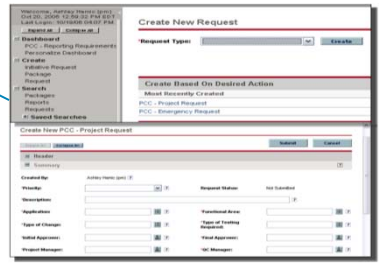
ERB Change Request List

Changes to be reviewed in a particular meeting

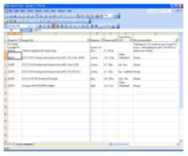
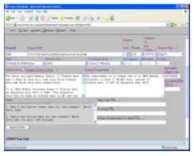
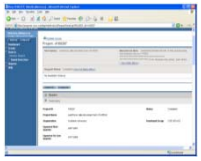


OnePCC/Kintana (also Mercury)

Link to testing documentation, approvals for SOX/Gatekeeper review and source code migration



…and decisions/approvals/gates captured

	CA-RMO Scope Tracker	CCB Change Request List	ERB Change Request List	I2R Request Tool	Empower (Mercury IT Governance Center)	Test Director	OnePCC / Kintana (also Mercury)	EMAN Change Request Tool
								
ARB Input	*Indicates whether ARB complete*			✔	*ARB input and output managed from ARB WIKI – no link in change request*	?		
ARB Output				✔		?		
Risk Score	✔			✔	✔	*Not done for CSCC*		
Biz approval	*(Sometimes missed and not noticed)*			✔	*Empower projects do not show biz priority or approval*	?		
CCB Approval	✔	✔	✔				✔	✔
Release Commit					*Release level approvals (RC, RR) kept outside formal system (e.g., release commit PowerPoint)*			
Readiness Review	✔							
Gatekeeper	✔						✔	
ERB approval	✔	✔	✔					✔
Deployment approval					*Above circled items pending confirmation*		✔	✔

Long-term tool needs

- Standardize on a single change request tool-set that encompasses:
  - Summary of the change request (#, title, short description, requester, business contact, technical contact)
  - Change prioritization
  - Approvals needed, status, and workflow
  - Batching of changes into releases
  - Management of the set of changes in a release – approvals and workflows at a release level
  - Link to test documentation: test cases, results, status
  - Link between SOX/gatekeeper review and approval at change or release level to test documentation underlying it
  - Link of approvals in change tool to source code migration approvals
  - Linkage to dependencies and notifications…?
- A single, standard tool to enable and enforce complete change documentation and high change documentation quality

Stability and Change – Then and now

	Case Analysis - 2006		Current Situation*
1.	**TS system instability** is a critical issue	→	Generally, users are not complaining about stability in TS systems*
2.	More than **8** P1/P2 cases are generated on average each month	→	About **4** P1/P2 cases per month caused by change (including releases) in 2007
3.	About **35%** of P1/P2 cases were caused by change	→	About **21%** of P1/P2 caseload is caused by change in 2007 (against overall smaller caseload)
4.	Key issues included **impact assessment**, **test planning**, **change control**, **release planning**, **infrastructure change issues**	→	Key issues include **infrastructure changes** causing TS apps issues, **bugs** introduced via releases, **source code management** issues
5.	During "interim change process" period, **69%** of TS P1/P2 change-related cases were due to Infrastructure changes	→	Of the change-related cases, roughly **45%** are infrastructure-related

** Analysis preceded March release; includes case data from Jan 2007 through Jan 2008*

Key differences between then and now

Then (2006)	Now
No coordinated non-C3 release process	Coordinated non-C3 releases with a designated release manager
No formal change control over non-C3 systems	*Mostly* consistent change control process for TS systems (with variations around tools used, risk assessment, QA involvement, controls over code migrations, etc.)
No visibility into non-C3 instability issues; business perception that "C3" is unstable, whereas 2/3 of cases were non-C3	System stability does not appear to be a critical issue *(pre-March release)*
Inconsistent QA coverage; many IT teams self-testing	QA covering almost all areas; areas not covered are "exceptions"
Little visibility into and no control over infrastructure and foundational changes affecting TS business	TS-impacting changes (manually) routed to CCB
CCB scope is C3 only; decision-making authority and charter are unclear	CCB covers TS applications and other TS-impacting changes

…BUT…

C3 is a **complex, highly integrated** application…
…**more and more functionality is coming into C3**…
…with **inconsistencies among change control processes** used for those changes…
…and an **increase in change-related cases "on the borders"** (AS, OMAR, Xelus, CDETS, BL)

Summary of where we are now…

C3 is **highly integrated and increasingly complex**, with new functionality brought in with every release (e.g., increasing CSCC coverage, AS functionality starting June release)

The **TS** organization has been struggling with **change process overhead** and needs to streamline its processes to **identify risks and impacts more clearly**, and better **focus discussion and detailed review around high-risk changes** more effectively

With additional IT teams involved, such as **CSCC**, there is **inconsistency and confusion** around the processes, mandatory gates, required documentation, and tools for how we manage change to C3, with **wide variation** in **documentation completeness and quality**

AS functionality in C3 adds additional concerns, due to **informal documentation practices for change requests and approvals** and **lack of cultural understanding of change risk** in a complex environment like C3 (much like TS-IT in 2005)

As in 2006, **IT teams making changes do not always anticipate the impacts** of their changes, resulting in **missed testing and stability issues**…Unlike 2006, these issues seem to be **broader in scale and impact**, now that the environment is more complex, and sometimes occur in areas well outside release/change scope (e.g., C3BL impact from March release)

We are concerned that the March release outcomes are a sign of things to come, given the trend over the past year and the specific March issues…Are we on the verge of a return to instability?