GDSN Delivery Process

GDSN, Inc. in conjunction with key stakeholders follows a straightforward process which encompasses the GS1 GSMP standards development process for the submission and deployment of requests for changes and enhancements to the network. This simple yet deliberate process contains milestones throughout to ensure the needs of the global community are met while maintaining the minimal support needed to implement. This paper is intended to provide a high level overview of the process highlighting stage gates and checkpoints to ensure proper scrutiny of continued commitment and support from initial submission of a request through implementation into the network. A supplemental document has been added to further clarify and define roles and responsibilities of key stakeholders.

The overall process is straightforward.

- One way to submit a request. In following GS1 due process, all requests are entered as a Change Request (CR) and reviewed by GSMP. Depending on the work effort required, GDSN Board approval may be required prior to proceeding.
    - Simple CR – Processed through the established GDSN BRG unless determined Complex.
    - Complex CR – Requires the formation of a GSMP Workgroup for that specific CR for which GDSN Board approval is required. The GDSN annual Prioritization process engages the GDSN User Group and Architecture team in providing the foundation for the recommendation to the GDSN Board for approval as part of the GDSN Roadmap.
- Two ways to deploy into the network, both of which require GDSN Board approval as part of the GDSN Roadmap. GDSN engages the GDSN Architecture team and GDSN Certification Agent, if applicable, in Implementation and Release planning.
    - Maintenance Releases – Composed primarily of Simple and Complex CRs with no impacts to backwards compatibility of the network. Maintenance Releases can include but are not limited to: Adding a term to a Code list, Adding new Optional Attributes, Errata, etc.
    - Certification Events - Composed of Complex CRs that have a major impact to end user implementation and are usually non backwards compatible to the existing version in the network. Also includes Simple CRs which require non-backward compatible changes. A certification event release can include but is not limited to: Deleting an attribute from schemas, Marking internal code lists external, Changing attribute cardinality from optional to mandatory, Adding a mandatory attribute.

All Change Requests are processed through the above established GS1 / GDSN processes with the focus of implementing into the network once the established minimum thresholds, key milestones and approvals have been secured. Feedback mechanisms are employed throughout the entire lifecycle of a CR to ensure that minimum community participation levels are being met prior to

proceeding. At any point, should a CR not satisfy minimal participation requirements, it can be closed if work order rules do not meet minimum thresholds as defined in the GSMP process.

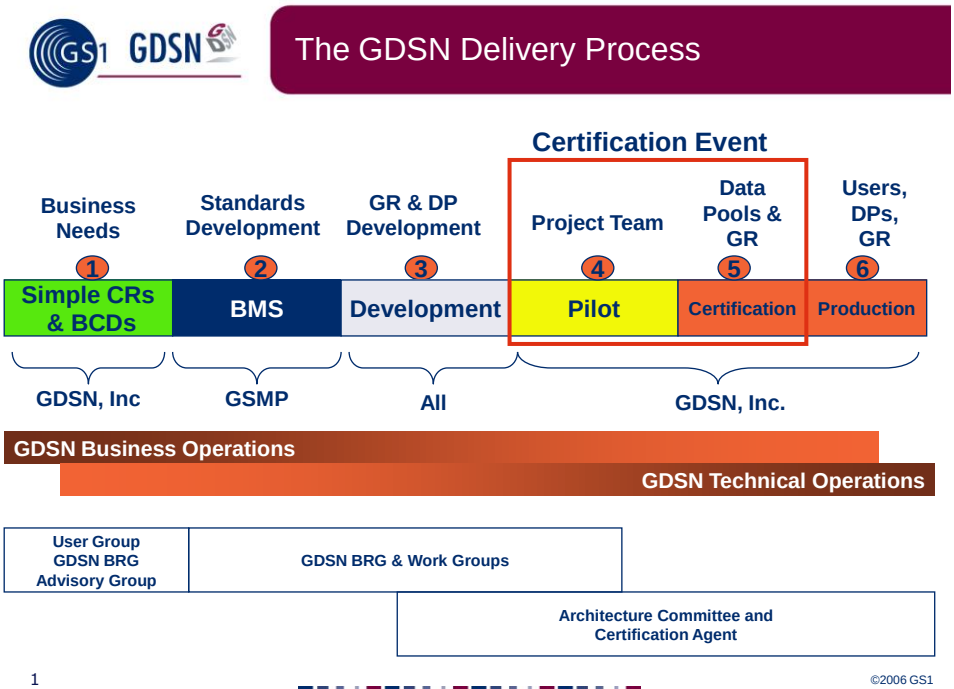
To date the majority of network requirements have been accomplished successfully through simple CR's. Of the Complex CR's approved by the board, the majority of those have been successful in being deployed through the maintenance release process, leaving only a few significant and strategic CR's requiring certification prior to implementation. Ultimately, the timing and frequency of all GDSN activities is controlled by the GDSN Roadmap which is approved by the GDSN Board.

Following is further explanation of the key milestones and minimum thresholds mentioned above.

1. Upon submission, each CR is reviewed internally by GSMP and GDSN to determine if the CR is considered simple or complex.

2. If deemed complex, a second external assessment is engaged with end users and data pools leveraging existing external assessment groups as appropriate (GDSN Architecture, Maintenance Release Team, GDSN BRG, Subject Matter Expert Sub teams, etc.). Once the CR is confirmed as Complex, it awaits the next GDSN Prioritization process to be considered for inclusion in the next GDSN Roadmap which requires GDSN Board approval.

3. Once a CR has received the appropriate approval to proceed, several defined processes begin to drive the CR implementation into the network. The overall GDSN delivery process, which encompasses the GSMP Standards Development process, is intended to support GDSN users, Data Pools, GDSN Inc. and GSMP teams working collaboratively to integrate business needs and technical implementations into the network.



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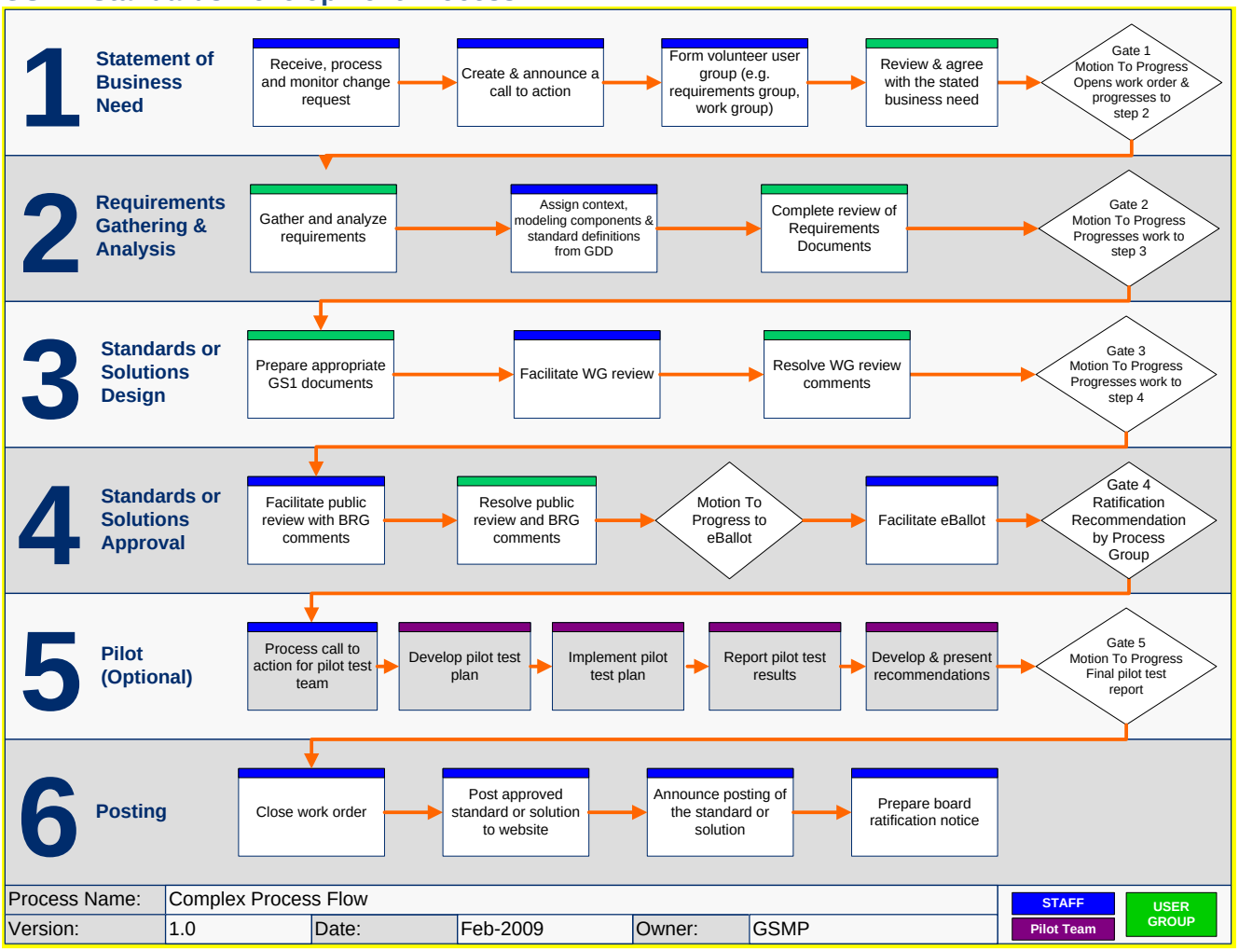
For complex CRs, GDSN Board approval is secured and the standards development process is initiated with the formation of a GSMP Workgroup. Throughout the standards development process, for simple and complex CRs, there are stage gates to ensure that due process and minimum thresholds are maintained through the progression of each CR. The following diagram outlines these stage gates.

GSMP Standards Development Process



Once approved the only way a CR can be eliminated is at any one of the above stage gates. This could be due to minimum levels of participation not being achieved or insufficient votes to support.

Each gate represents a checklist of requirements that must be met before proceeding to the next stage. The purpose for having these gates is to ensure commitment, scope consistency, and communications throughout the life of the project. A minimum participation threshold of community members is required during motions at gates 1 (BCD), 2 (BRAD), and 3 (BSD). If a motion to the next step cannot be made because the required minimums were not reached, a subsequent motion may be called. If failure to meet the minimums on the second occurs, the CR will be withdrawn and notification sent to the community that the workgroup will not continue.

GSMP rules regarding voting and approval as defined in the GSMP Manual:

- On-line Electronic voting is used (i.e. eBallots)
- No 'quorum' rule due to two-week virtual vote and minimum participation requirements
- eBallots are open for at least 14 calendar days
- Voting options are to Approve or Disapprove with comments
- 1 Vote per organization
- Approval requires:
    - Minimum 12 affirmative votes. Of the 12, a minimum threshold of two parties from either side of the trading partner relationship along with two MOs is necessary
    - Two thirds (2/3) of the total votes must be affirmative to ensure a simple majority

Once a CR successfully moves through all gates of the standards development process and an approved BMS is available, GDSN engages the Architecture team to fully assess development and implementation requirements for all key stakeholders (GR, KATO, DPs, TPs), and define deployment plans.. If a certification event is required, the GDSN Certification agent is engaged to assist GDSN and the Architecture team in the overall Certification event planning and timeline including test cases.

While GDSN and the Architecture team follow each CR closely and may have preliminary discussions regarding development and implementation effort, it is only when the final solution is available that an accurate assessment can be made. In some cases there may be options regarding how a standard is implemented. In these cases GSMP will engage GDSN and the Architecture team to discuss and provide a recommendation. One example would be a CR whose implementation could require a greater burden to Data Pools while buffering impact to Trading Partners, or, less burden to Data Pools and more to the Trading Partners.

GDSN engages the Architecture team for assessment and planning of all network deployments from simple Code List implementations, Maintenance Releases, GPC deployments and Certification events. Depending on the complexity of the release, these planning activities can range from a regularly scheduled Architecture call discussion to a multi month planning process including mandatory all hands meetings.

In conclusion, the GDSN deployment process is a well thought through and deliberate process which encompasses a significant amount or resources from all key stakeholders. The focus is ensuring GDSN meets the needs of the global community while allowing sufficient time for planning and preparing. Throughout the process, feedback mechanisms are in place to ensure the community is represented through to implementation itself. While individual CR's readiness to implement into the network is dictated by the above mentioned process, planning and scheduling is ultimately driven by the GDSN development roadmap which is driven by balancing the GDSN and Architecture team recommendation and the approved GDSN development budget and resources.

GDSN Inc. – Key Stakeholders Roles and Responsibilities

Roles and Responsibilities are distinguished between the development of Business Needs (User Group), the development of Standards (GDSN Business Requirements Group) and Technical Guidance (Architecture Committee):

- GDSN Board
  - Approve annual budget (includes allocations for projects in flight, network releases, new projects, software development of GR and KATO and operational expenses of GDSN)
  - Approve Certification Agent
  - Guide GDSN Strategic Direction
- GDSN User Group – Mission to identify industry business needs, define high-level business requirements and provide input to the prioritisation of GDSN functionality.
  - Identification of business processes the GDSN can improve and automate
  - Identification of a user Champion and necessary project team members
  - Identification of committed pilot participants
  - Delivery of the Business Case Document (BCD)
  - Help determine annual release plan
  - Vote on project priorities following GDSN Prioritization process
  - Elect Advisory Group members
- User Group Project Teams – Ensure the Business Case Document (BCD) adequately represents the project's business needs.
  - Are formed on an "as required" basis and exist for a limited duration. Formation is at the discretion of the GDSN User Group, with review by the Advisory Group and final approval from GDSN, Inc.
  - Have specific deliverables, A User Champion, committed Trading Partners and Data Pools who will pilot and implement the functionality and will be managed as a project.
  - Approval of a Business Case Document signals that the project is ready to move into the GSMP phase of the standards development process. The Project Team members may follow the project into the GSMP Phase.
- GDSN Advisory Group – Provides valuable input and guidance to the GDSN, Inc. management team as follows:
  - Advisory role to the User Group project teams
  - Ensure continuity across GDSN and GSMP process
  - Review GDSN and User Group team proposals
  - Assist in formation of User Group project teams
  - Provide direction to GSMP GDSN Business Requirements Group (BRG)
  - Process and methodology improvements
  - Review Physical meeting objectives and agendas
- GSMP GDSN Business Requirements Group (BRG)
  - Using the BCD as input, develop the detailed business requirements in the BRAD
  - Sponsor work groups to accomplish specific missions
  - Test solution via an application based pilot. Joint responsibility with the User Group Project Team
  - Formally approve the final standard

- Architecture Committee – GDSN Technical Operations.
    - Provide recommendations and guidance to GDSN User Group, GDSN Inc. and GSMP on technical design and implementation, timelines and operations associated with Business requirements submitted by the GDSN User Community AND operations of the existing network.
    - Provide specific guidance with regards to Complex CR assessment and implementation planning