Project Proposals and Specifications

As of June 26th 2019 we’ve adopted a Lightweight RFC Process. If you are considering making a proposal yourself, it is encouraged to follow that process and use the associated RFC template.

To have discussion of proposals in a single place, discussion should be kept on the mailing list.

RFC Template

Under Discussion

- Introducing a Geode Linking Module
- Addition of Manifest File with “Dependent-Modules” Attribute to All Geode Projects
- Creating Geode Components Using ComponentManagementService
- ServiceResult and Functional Result Handling
- Dynamically Loading/Unloading Features
- Allow multiple trust and key store files to be configured for a Geode cluster
- Server-Side Thread Pooling for Client-Server TLS
- Get locators internal host addresses for clients in same subnet
- Service Loader interface for Data Serializable Fixed IDs
- Introducing VisibleMembers attribute
- Improve data inconsistency in replicated regions
- Customization of ResourceManager’s JVM Interaction
- LiveServerPinger improvements
- Improve possible duplicate logic for secondary buckets in WAN
- Migration from springfox to springdoc
- Introduce monitoring of async writer thread
- Enhancement of start gw sender with clean-queue
- Enhancement of backup disk-store command

In Development

- De/un-deprecate IndexType ENUM
- Certificate Based Authorization
- Replace UDP messaging for membership with TCP
- Logging to Standard Out
- Cluster Management Service
  - Cluster Management Service Rest API
    - 1.10.0 Management REST API - experimental
    - 1.11.0 Management REST API - v1
    - 1.12.0 Management REST API - v1
    - 1.13.1 Management REST API - v1
    - 1.14.0 Management REST API - v1
    - 1.15.0 Management REST API - v1
  - Cluster Management Service Java Client
  - Cluster Management Service CLI Client
  - For extension developers: How to Add Elements Managed by Cluster Configuration Service
  - Guidelines for Cluster Management service
- WAN Configuration for an Ingress Proxy
- Geode Redis API Improvements
- Support for clear operation on partitioned region
- Persist gateway-sender startup-action within Cluster Configuration
- ClassLoader Isolation
- Management of threads stuck for a long time in Geode

Icebox

- Usability
  - Client Usability Improvements
  - Usability and API Enhancements Requirements
  - Usability and API Enhancements Spec
- JVSD
- HDFS Persistence Store
- Geode Modularization Proposal (work in progress)
- Pluggable Cache Persistence and Overflow Stores
  - Proposal for pluggable cache stores
- Function Service Usability Improvements
- Custom External Type Definition Proposal
- Pluggable Data Converters
- Proposal for Geode Modularization
  - Geode Modularization - An approach
- Upgrading to Lucene 7.1.0
- Refactoring Proposals
- Allowing more distributed-system-ids than 255 (work in progress)
Support PDX objects as binary data, not JSON, in the new protocol (work in progress)
Replace singleton PoolManager with ClientCache scoped service
Public API to Add Endpoints to Geode HTTP Server
[Icebox] Geode dependency update process
Collecting Framework Dependencies into single Gradle Dependency
Add option to allow newer Geode clients to connect to older Geode servers
New Client Server Protocol
  - Message Serialization and Transmission
  - Implementation Phases and Milestones
  - High Level Goals
  - Work in Progress
    - Server Architecture
    - Protocol Message Examples
    - Geode Data Types
    - RPC framework evaluation
- Road Map, Proposed
- How To Create a Geode Client in 10 Easy Steps
  - Delimiting Protobuf Messages
- Protobuf Protocol
  - Message Structure and Definition
    - Error Codes
    - Connection Operation Message Definitions
    - Version Identification
    - Region Operation Message Definitions
    - Locator Operation Message Definitions
- Protobuf Value Encoding Scheme Proposal

Implemented
- Replacing JGroups 2.2.9
- Management and Monitoring
  - Management API
  - Management and Monitoring Requirements
  - Proposed MBeans
  - Diagrams of Proposed MBeans
- Logging Spec
- Off-Heap Memory
  - Off-Heap Annotations
  - Off-Heap Memory Spec
- Automated Rebalancing
- Sept 2015 Website Refresh proposal
- OQL Aggregate functions and UDA
- Geode Redis Adapter Proposal
- Revised SSL properties
- Text Search With Lucene
  - Text Search Aggregation Options
- Lucene Index Creation on Existing Region
- Configuration Persistence Service
- Lucene Text Search on Nested Object
- Proposal for supporting default SSLContext
- Simple JDBC Connector
- Lightweight RFC Process
- Instrumenting Geode Code
- Controlling event dispatch to AsyncEventListener
- Upgrade Spring version from Spring 4 to Spring 5.x
- Finer grained security
- Move membership code to a separate gradle sub-project
- OQL Method Invocation Security
- Move gfsh code to a separate gradle sub-project
- Group Configuration in Management Rest API
- Shipping patch releases
- Client side configuration for a SNI proxy
  - Allow same host and port for all gateway receivers
  - Gw sender to deliver transaction events atomically to receivers
  - Add C Bindings to Native Client Library
- Redundancy Gfsh Commands
- Introduction of SSL Parameter Extension
- Make Cluster Management Service(CMS) Thread Safe
- New option for serial gw sender dispatcher threads start
  - Avoid the queuing of dropped events by the primary gateway sender when the gateway sender is stopped
- Introduce Codeowners file
- Introduction of new command "alter gateway-sender"
- Make key and trust stores reload automatically upon change
- Geode Compatibility with Redis data sharding and cluster changes
- Geode Command to replicate region data from one site to another connected via WAN
- Introduction of ClassLoaderService into Geode
- On Demand Geode Authentication Expiration and Re-authentication
• Integrate Geode's redis API with the security manager
• Versioning Extension
• Enhance Off-heap memory fragmentation visibility
• Improvements on client Function execution API

Unknown State

• Statistics
  ◦ Statistics API
  ◦ List of Statistics
• Notes for rolling upgrade updates
• Function Service Refactor - Removal of static-ness and splitting of client and server-side FunctionService
• Proposal for Gfsh Feature Flag
• Lucene built-in QueryProvider for user to run complex search in gfsh
• WAN Gateway Sender Callback API & Dead-letter queue example implementation

Dropped

• [DROPPED] Client side configuration for a SNI proxy
• Make Geode's Working Directory Configurable
• ServiceRegistry
• Throttling of OQL queries