

State Street Cloud

Cloud Link

Cloud Link – Use cases

Delegate a service call to background

- The foreground service should be able to delegate a service call to background
- The service will be executed in the background and result set need to be pushed to the foreground

Execute service as a background job

- A service when its doesn't qualify as a foreground service need to be moved to background

Check status of a delegated service

- The caller should be able to make a service call to check the status of a delegated service

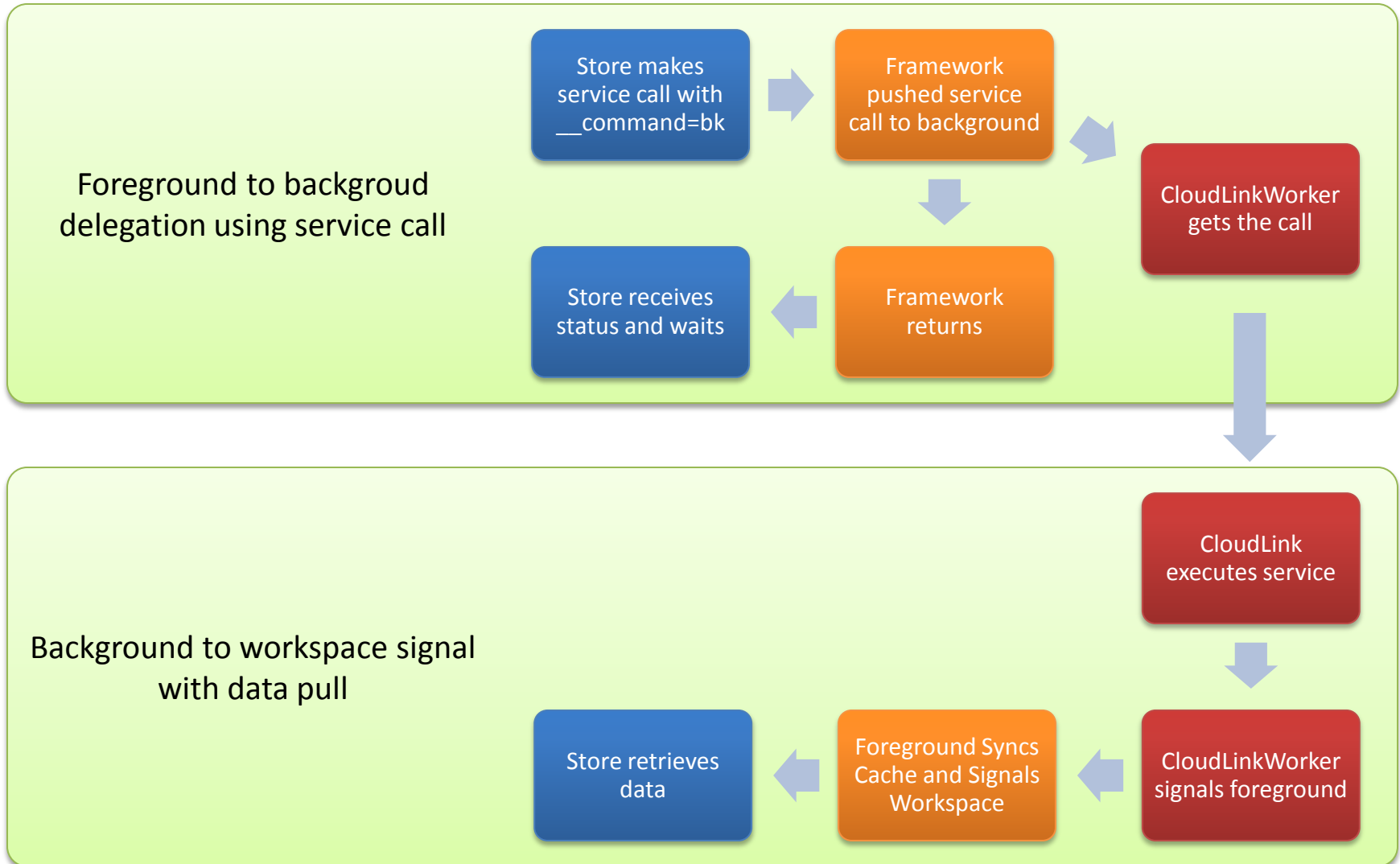
Signal OWT Workspace

- When a service execution is complete the and if that was originally triggered from a OWT, use push to signal the completion status

Retrieve result of a delegated service all

- When the client realizes that the service's resultset is ready it should be able to retrieve the data

Cloud Link - Activity Diagrams



Application's View Point of Cloud Link

Backend

- Implement IDF (take all the time you want to process)
- Unit test using jUnits
- Deploy IDF in background cloud

OWT

- Invoke service using a Store or GridPanel (any control would work) and pass `__command=bk`
- Wait for the store to load

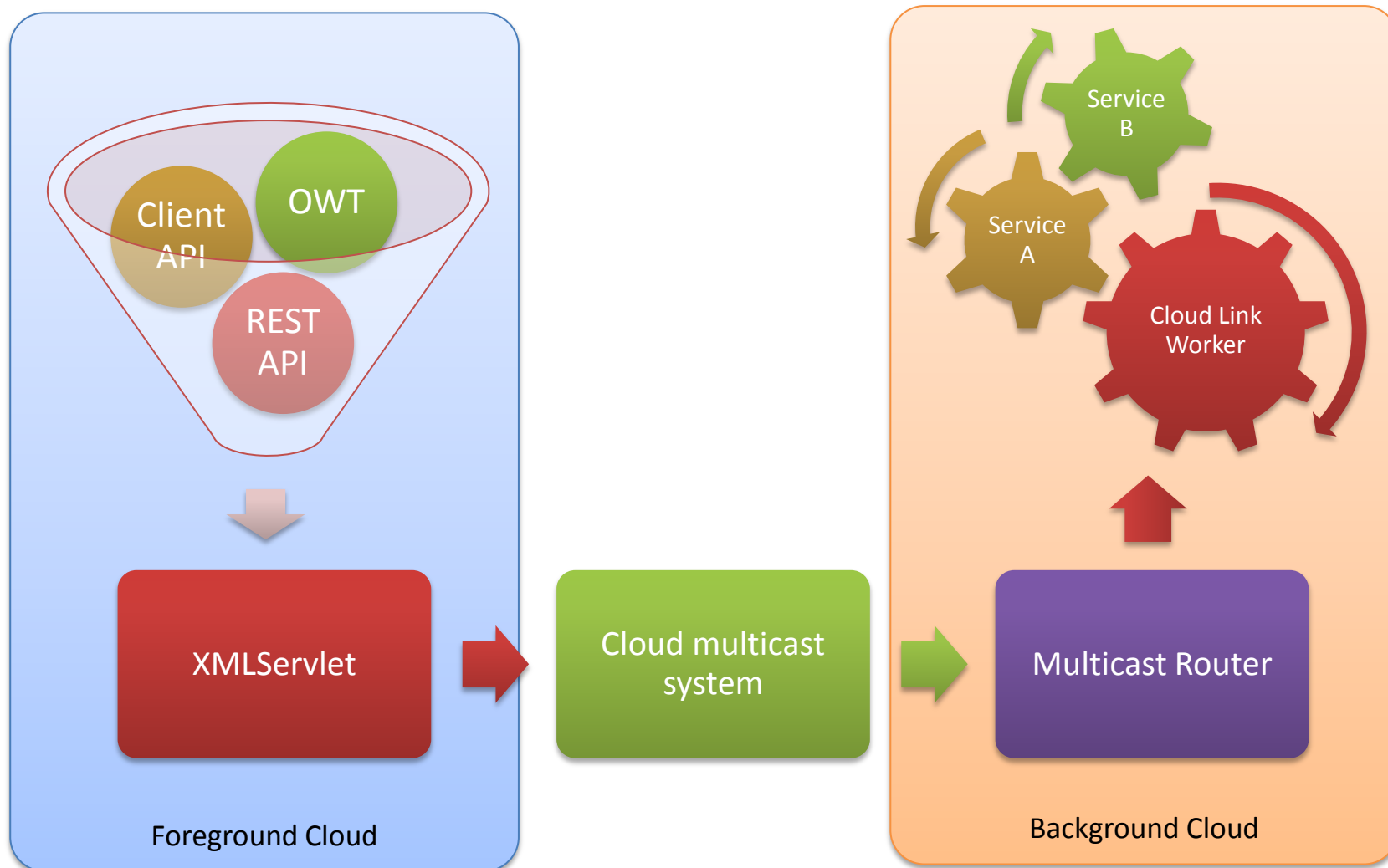
Client API

- Using Client API in invoke service with `__command=bk`
- Check status using Client API with `__comand=bkcheck`
- Retrieve data

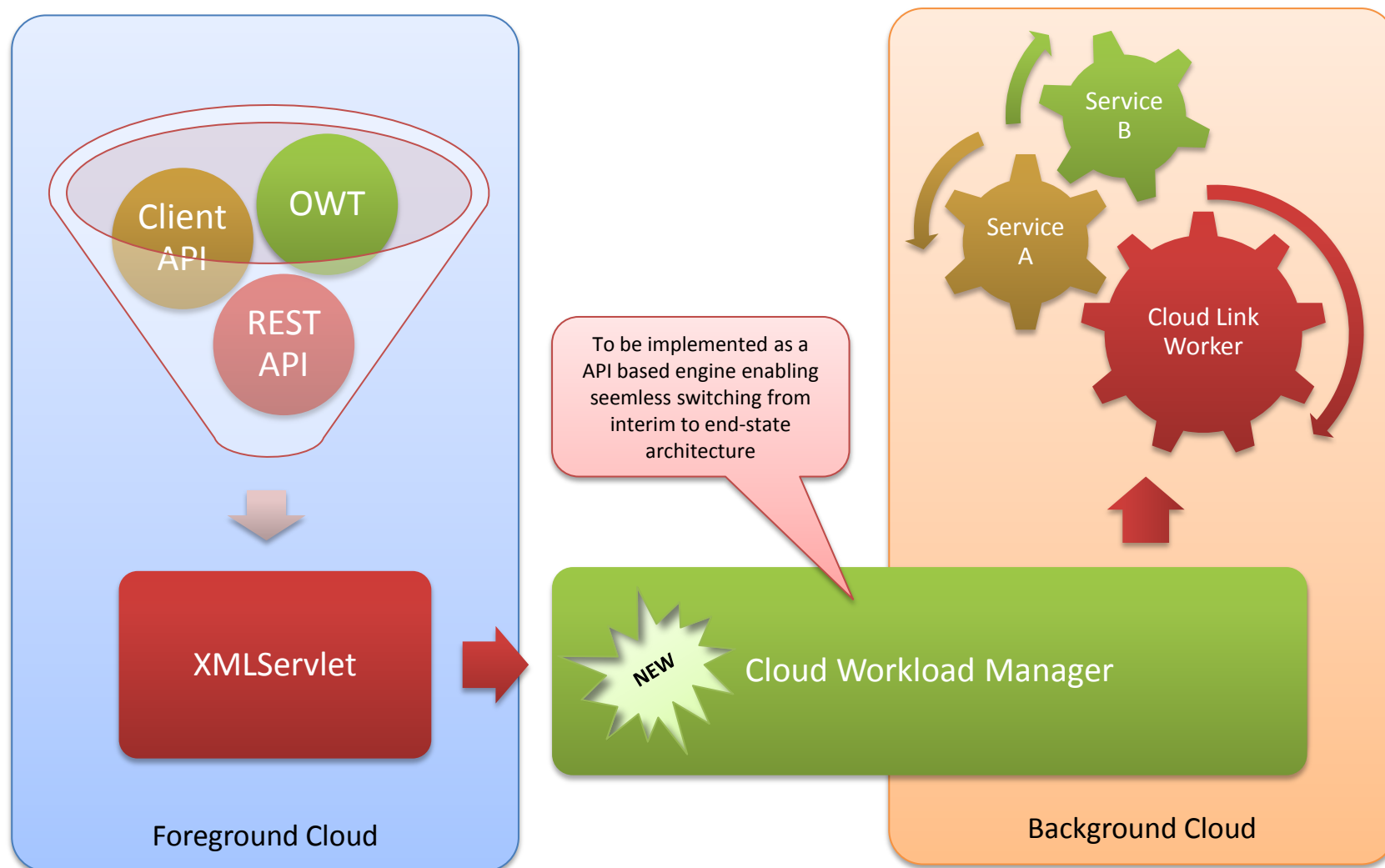
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IMPLEMENTATION

Interim Architecture



End State Architecture



Cloud Link

CLOUD WORKLOAD MANAGER

Use cases – General

Foreground Cloud

- Queue a job
- Get status of a job
- Get result of a job
- Get jobs in queue
- Cancel a job
- Change priority of a job

Workload Manager

- Manage job queue
- Check queue
- Find worker
- Assign job
- Update job status
- Manage result cache

Background Cloud

- Register worker (w/ maxThreads, maxConcurrent)
- Do work
- Send status back
- Send result back with persistent cache
- Schedule a job with cron trigger + regional business calendar
- Schedule a job with message queue trigger
- Schedule a job with file watch trigger

Use cases – Operations

Dashboard

- View running jobs
- View waiting jobs
- View failed jobs
- View job details
- View job activity log
- View job queue summary

Reporting

- View job execution time report with option to see historical data
- View job distribution

Overrides

- Pause workload manager by App/Zone/Env
- Resume workload manager by App/Zone/Env
- Change Priority of a job
- Stop waiting job from getting picked up
- Re-queue a job
- Force stop a running job

Monitoring

- Setup alert pref of a job
- Send SNMP alert based on pref
- View log by job run instance