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# **GMA**

## **Group Member Access**

### **General Member Meeting**

London, 8 June 2009

Amsterdam, 9 June 2009

Paris, 10 June 2009

Brussels, 11 June 2009

Lisbon, 18 June 2009

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## **GMA Roll-out Presentation – June 2009**

**GMA Reminder**

**GMA Roll-out : Macro-planning**

**GMA Roll-out : User steps**

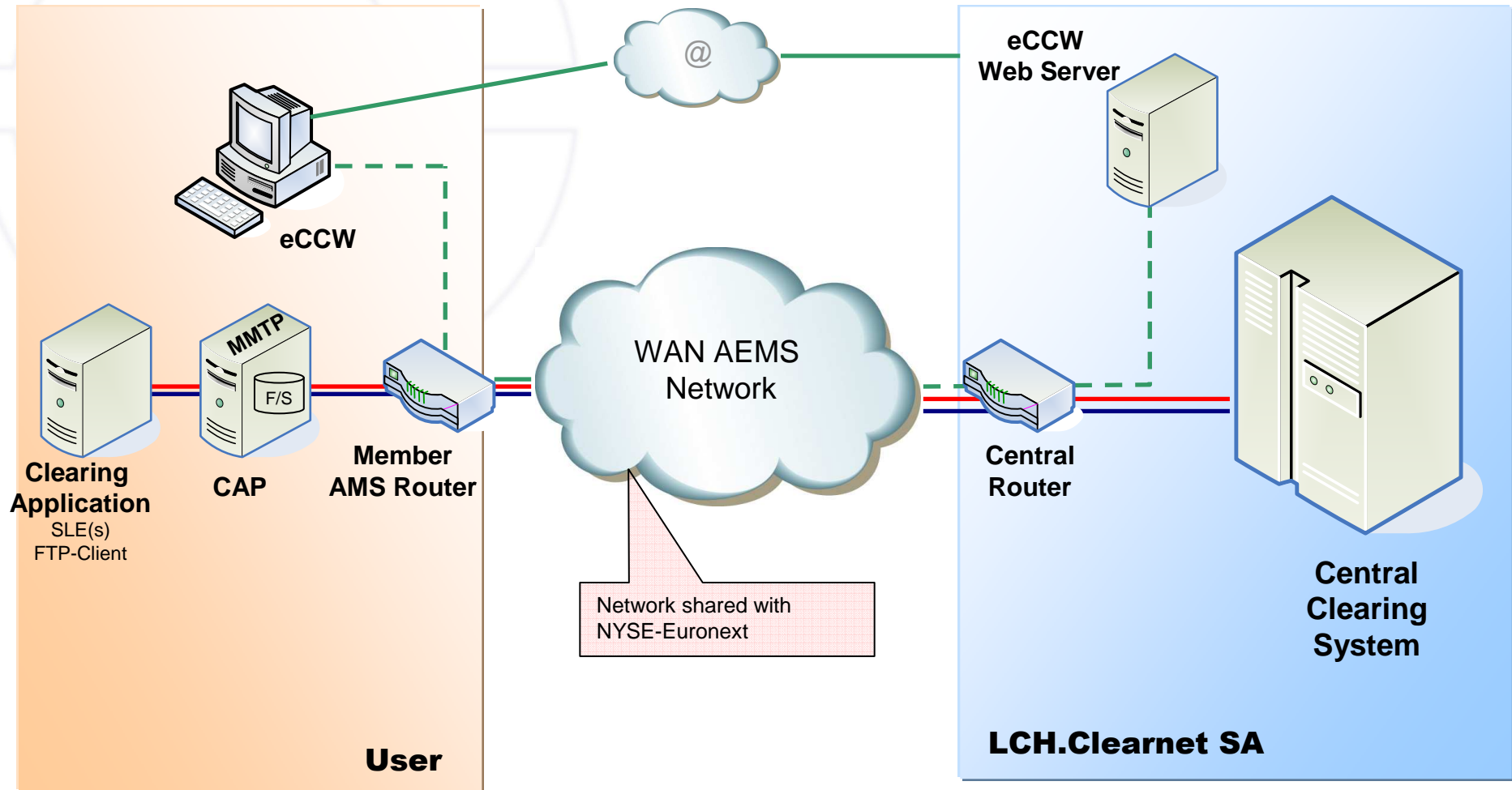
**GMA Roll-out : Migration details**

**CAP and Bourse Connect decommissioning**

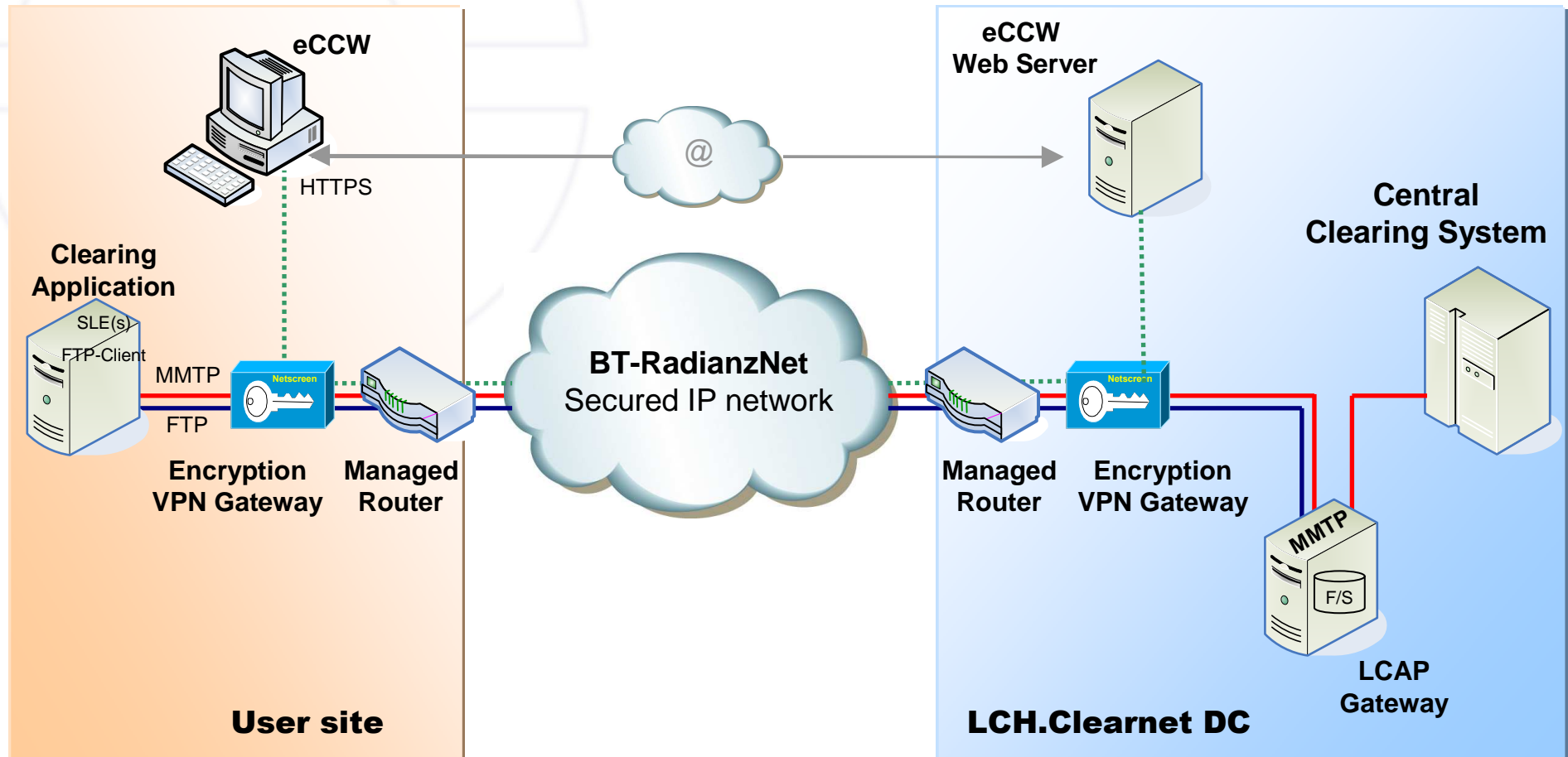
**GMA Invoicing general principles**

**GMA Roll-out conclusion**

# GMA reminder: Existing architecture



# GMA reminder: Target architecture

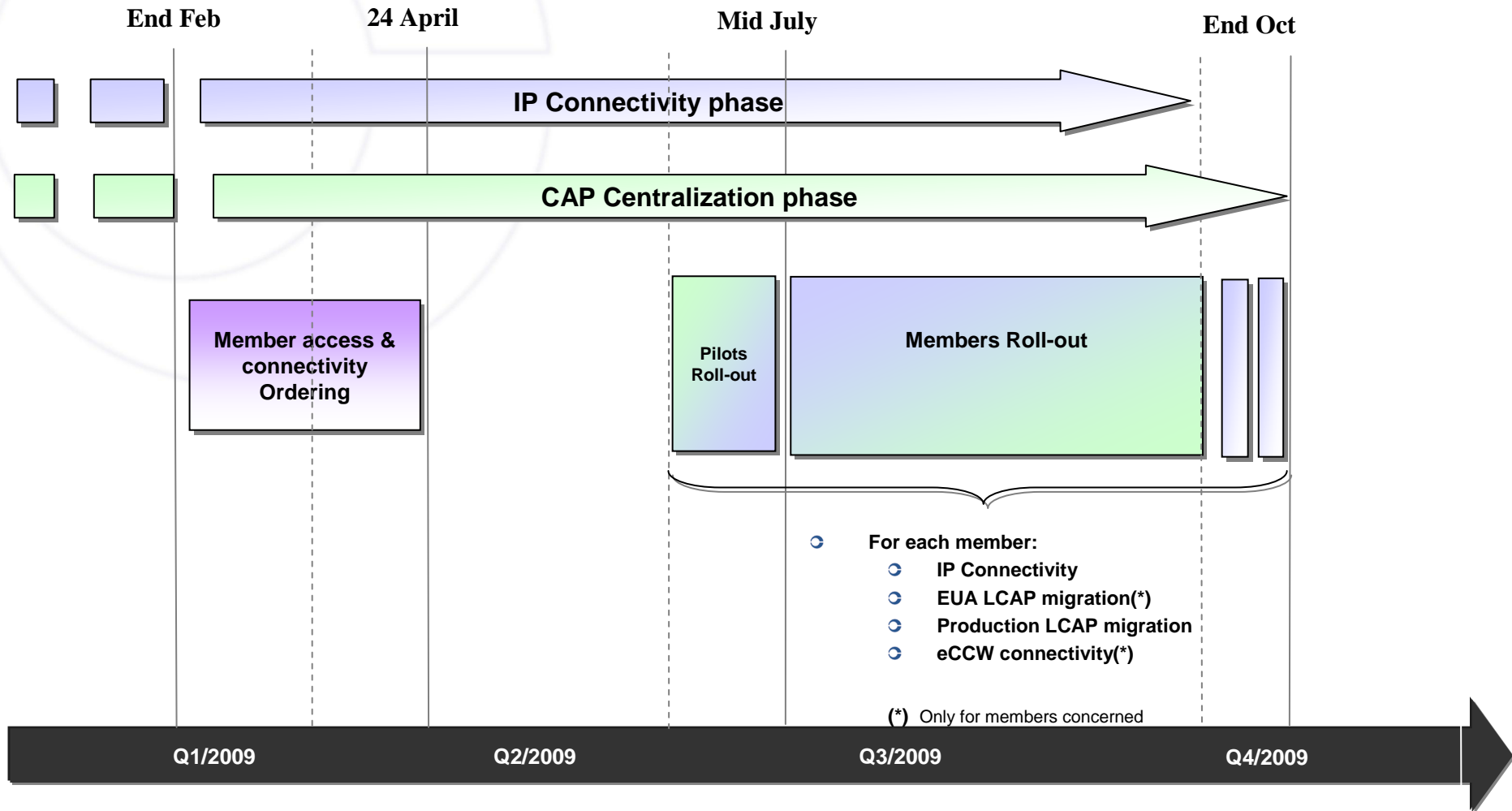


# GMA reminder: Migration principles

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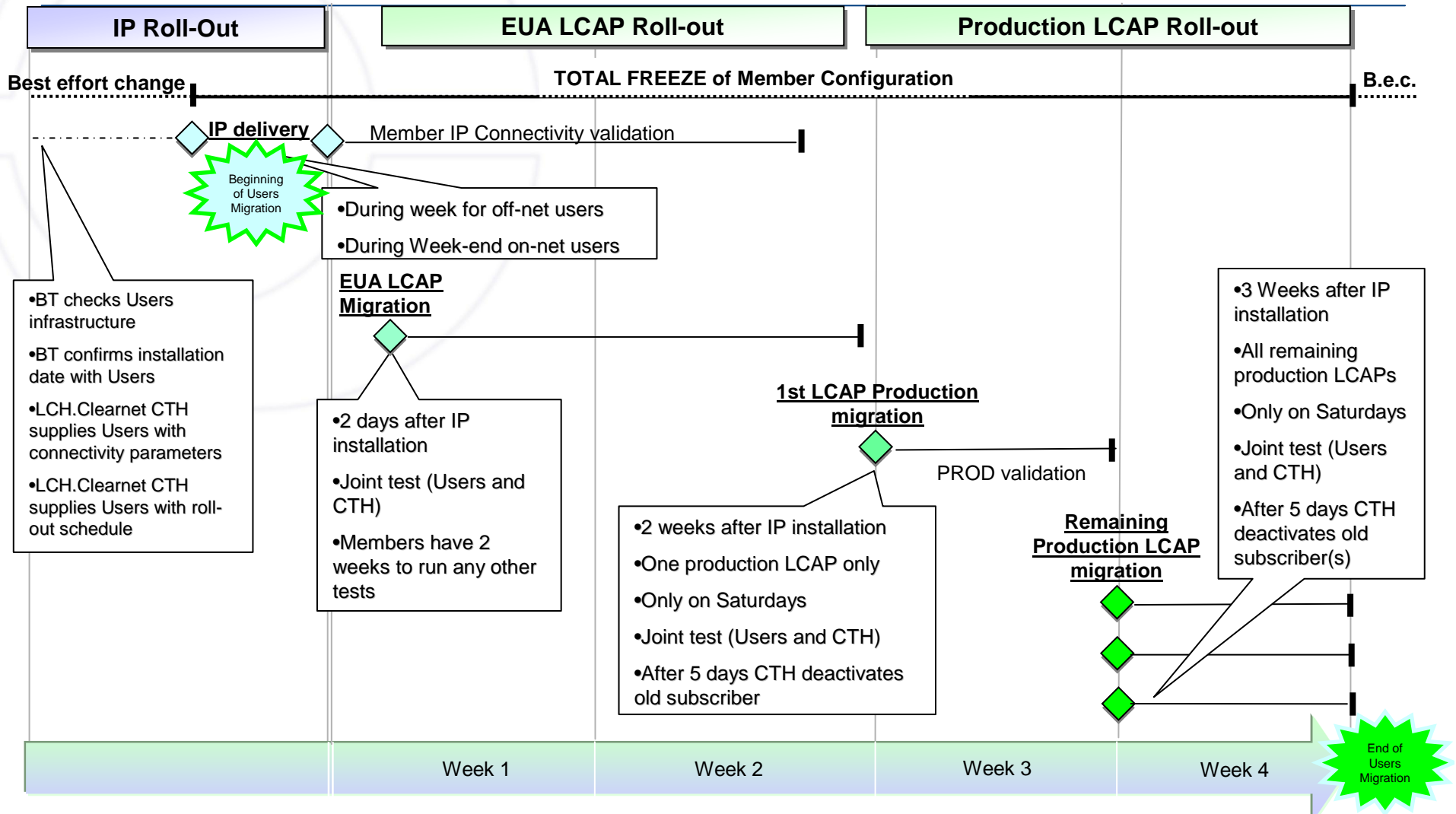
- New IP network installation prior to LCAP migration
- Migration to LCAP as soon as possible after IP network installation
- EUA LCAP migration to take place during the week
- Production LCAP migration to take place during week-ends
- All CAPs/MAPs replicated 1 for 1 with LCAPs (with their respective SLEs)
  - CAPs that will not be migrated must be ceased by members prior to the beginning of the migration
- One-shot migration per CAP with all existing SLEs attached
- Freeze of Member configuration
  - Total freeze of CAP/MAP configurations during each Users' own migration period
  - Best-effort changes from beginning to end of Global Member Roll-out period

# GMA roll-out: Macro planning



# GMA roll-out: User steps Overview

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- All Users will have their own schedule
- Intervals between milestones are fixed
- Milestone dates will be confirmed by LCH.Clearnet SA CTH
- Users can start organising their tasks to prepare the following steps:
  - **Step 1 - BT and CTH contacts Users**
    - BT checks with User their infrastructure / configuration information
    - Approximately one month prior to the IP delivery:
      - BT, CTH and User schedule a date for the IP delivery
      - CTH provides Users with their new configuration parameters by email
      - CTH organises the LCAPs migration sequence with User
      - CTH confirms the LCAPs migration schedule to User

## Users have one month to prepare changes



## Step 2- IP delivery

- Initial milestone for the fixed LCAP migration sequence
- Final IP infrastructure installation by BT at User's sites (as indicated on the Order Form)
- One week before this date, CTH could send to User by email a reminder of the milestones, the new configuration parameters and the user contact for that date

**After this step the migration to LCAP can begin**

## ○ Step 3 - EUA LCAP migration

### ○ 2 working days following the IP delivery (step 1):

- User manages the migration of Users' EUA clearing application from the EUA CAP to the EUA LCAP with the support of CTH
- A dedicated CTH operator will follow by phone the various steps of the technical checklist
- Migration and checks should only last a couple hours per LCAP
- CTH will send Users by email an "Acceptance Test Certificate" containing the test results and a confirmation of the dates for the migration of the production LCAPs
- Roll-back to old CAP will be possible the 5 working days following the migration

**After this step Users are able to perform free tests on EUA platform**

- **Step 4 - 1st Production LCAP and eCCW\* migration**
  - 2 weeks following the IP delivery (on a Saturday)
  - User migrate the 1<sup>st</sup> Production LCAP jointly with CTH
  - User migrate the eCCW<sup>®</sup> connectivity jointly with CTH
  - CTH will follow by phone the various steps of the technical checklist
  - CTH will send Users by email an “Acceptance Test Certificate” containing the test results and a confirmation of the go-live of the first production LCAP the following Monday
  - Roll-back to old CAP will be possible 5 days following the go-live

**After 5 days of successful run LCH.Clearnet will deactivate the old CAP subscriber**

(\* ) concerned Users only

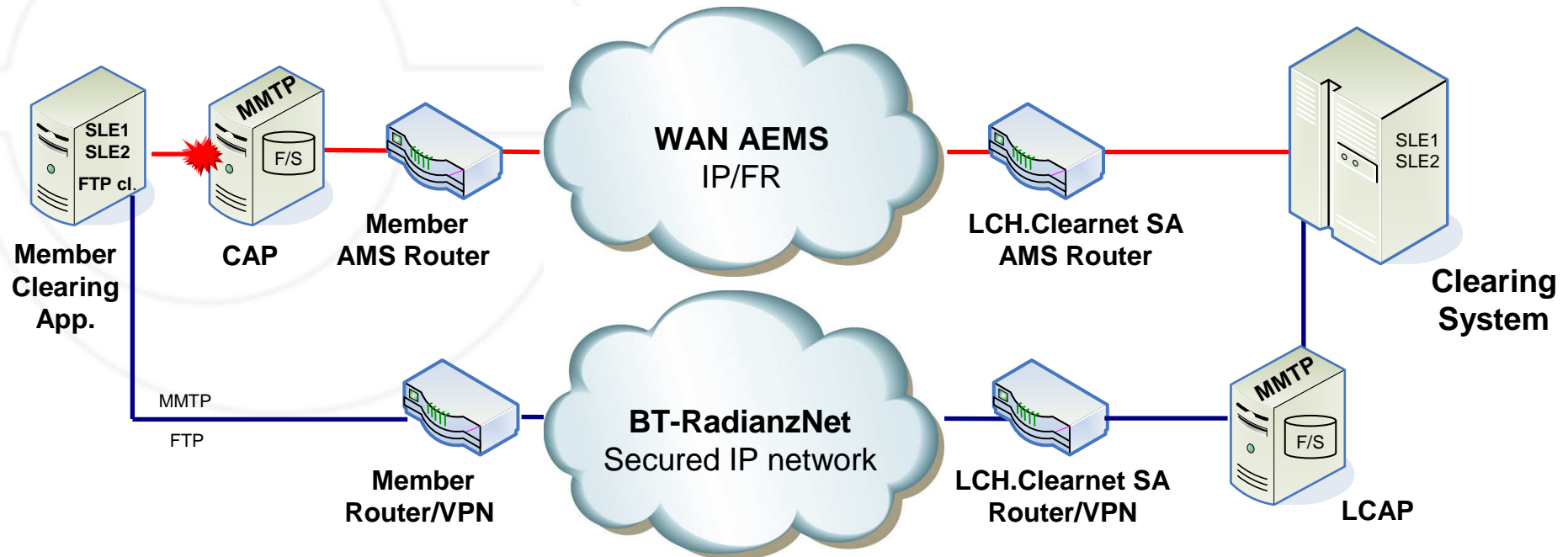
## ○ Step 5- Remaining Production LCAP(s) migration

- 3 weeks following the IP delivery (on a Saturday)
- User together with CTH manage the migration of the remaining Production LCAP(s)
- CTH will follow by phone the various steps of the technical checklist
- CTH will send Users by email an “Acceptance Test Certificate” containing the test results and a confirmation of the go-live of the remaining production LCAP(s) the following Monday
- Roll-back to old CAP will be possible 5 days following the go-live

**After 5 days of successful run LCH.Clearnet will deactivate all CAP(s) subscribers**

# GMA roll-out: Migration Overview

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- Progressive migration of all attached SLEs, FTP client and eCCW
  - BT installs new connectivity
  - CTH builds LCAP and connectivity to network
  - User builds connectivity between Clearing application and VPN Gateway
  - User modifies existing SLE or creates a new subscriber (new login/password) with new IP address LCAP
  - User configures File Transfer in FTP between Member File Server & LCAP with dedicated login / password
  - User modifies network routing parameters for eCCW
  - CTH shuts down IN/OUT flow on old CAP, no more files or messages available
  - After 5-days log recovery CTH deactivates old subscriber

# GMA roll-out: Migration technical preparation

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- The CTH will prepare, set up and configure the new GMA connectivity solution for EUA and Production in parallel, but will not activate it
  
- Connecting Users Clearing Applications to the new IP connectivity
  - Users will have to manage jointly with the IP provider the IP parameters to connect their LAN to the new VPN Gateway
  - Internal network configuration
  - Users must physically plug the LAN to allow the Clearing Application to reach the VPN Gateway device (supplied by the Provider BT)
  
- Prepare for connecting Users Clearing Application to LCH.Clearnet new Clearing gateway
  - Locate all SLE subscribers, identify parameters that will need modification and the CAP they are attached to
  - Locate all FTP clients, identify parameters that will need modification and the CAP they are attached to
  - Locate eCCW<sup>®</sup> and the parameters that have to be modified



- Connecting to the real time MMTP client and the FTP client
  - The CTH will send Users their connection parameters by email once the IP network installation has been scheduled
  - A few days prior to IP network installation the same email could be sent again
  - **New parameters for messaging (MMTP client) connection:**
    - New LCAP IP address + attached TCP port ( supplied by LCH)
    - New MMTP subscriber : login / password (supplied by LCH)
  - **New parameters for FTP connection:**
    - New File server IP address = New LCAP IP address
    - Default TCP port “21”
    - A single FTP login and password ( supplied by LCH) valid for all FTP connections of a User
    - Once connected the “:\Files” directory of the LCAP (Home directory) is available in “read only” mode and provides access to the following subdirectories:
      - “\In” : Contains uncompressed clearing files (as currently)
      - “\In\_GZ” : Contains compressed clearing files (extension « .gz »)

# GMA roll-out: Migration of eCCW<sup>®</sup> connectivity 4/5

## ☉ New eCCW IP address configuration:

- ☉ If the member uses a public IP address as the eCCW access point (AEMS public WAN)

=> change public AEMS IP address to a private IP address (member LAN) already “NATted” by VPN gateway BT-RadianzNet , on the GMA public IP address range

- ☉ If the member is using a private IP address for the eCCW (customer LAN) and NAT in AEMS public WAN

=> no change to eCCW IP address, but only a new NAT by VPN gateway BT-RadianzNet , on the GMA public IP address range

## ☉ New URL configuration

- ☉ If the member uses a URL domain name

=> change access mode by using the following new IP address:

- ☉ 213.90.250.1 eCCW PROD
- ☉ 213.90.250.9 eCCW EUA
- ☉ 213.90.250.17 eCCW Disaster Recovery site Connecting



- The day of the migration, the CTH will close the IN/OUT flow of the “old CAP”
- Users Clearing Application will no longer be authorised to send commands or receive any real time messages or receive files via the “old CAP”
- If the migration is not successful (technical tests failed)
  - User will have to roll back to the “old configuration”
  - CTH will re-open the corresponding IN/OUT flows of the “old CAP”
  - User roll-out will have to be re-scheduled

# CAP and Bourse Connect decommissioning

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- 5 days after LCAP installation CTH will send an email to NYSE-Technologies (owner of the Bourse Connect Network and of the CAP/MAPs) and a copy to the User to inform that the migrated CAP is not active any more

Reminder:

- It is up to Users to manage the decommissioning of CAPs and the Bourse Connect Network with NYSE-Technologies
- Not to forget that your decommissioning plans with NYSE-Technologies shall also entail trading CAPs and Bourse Connect Network connectivity

# GMA LCH.Clearnet SA Invoicing general principles

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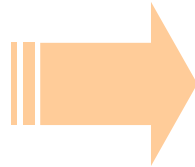
- LCH.Clearnet SA invoicing will be based on the Users Order Form
- The goal is to charge only operational IP Connectivity and LCAP(s)
- Services will be charged 2 weeks after the migration of the 1st production LCAP and will cover IP connectivity\*, EUA LCAP\* and 1st production LCAP
- Other production LCAPs will be charged two weeks after their migration date
- GMA fees will be subject to general principles governing LCH.Clearnet SA invoicing and will be detailed in the “Access Agreement”

(\* ) If ordered from LCH.Clearnet SA

# GMA Roll-out conclusion

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- 80+ sites to be installed
- 220+ LCAPs to be migrated
- 18+ Week-ends planned



## GMA roll-out relies on:

- Precise organisation
- Optimised timing
- Dense schedule

**LCH.Clearnet SA is committed to this roll-out schedule and stresses the need for Users to also commit to their respective schedules by:**

- Acknowledging test scenarios ahead of migration
- Anticipating tests
- Setting-up any tools that may be useful during the Week-end
- Prepare necessary configuration and prerequisites

# LCH.Clearnet SA Contacts

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## Customer and Market Management - Product Implementation

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