

CA GEN migration at Kadaster

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Kadaster (Dutch Land Registry)

- Registering real estate
 - Public registers (mortgage, legal status)
 - Cadastral register (index, owner, purchase price)
- Registering moveable properties
 - Ships (tankers, leisure vessels and houseboats)
 - Aircraft
- Providing information
 - Boundaries
 - Restrictions in public law (monuments)

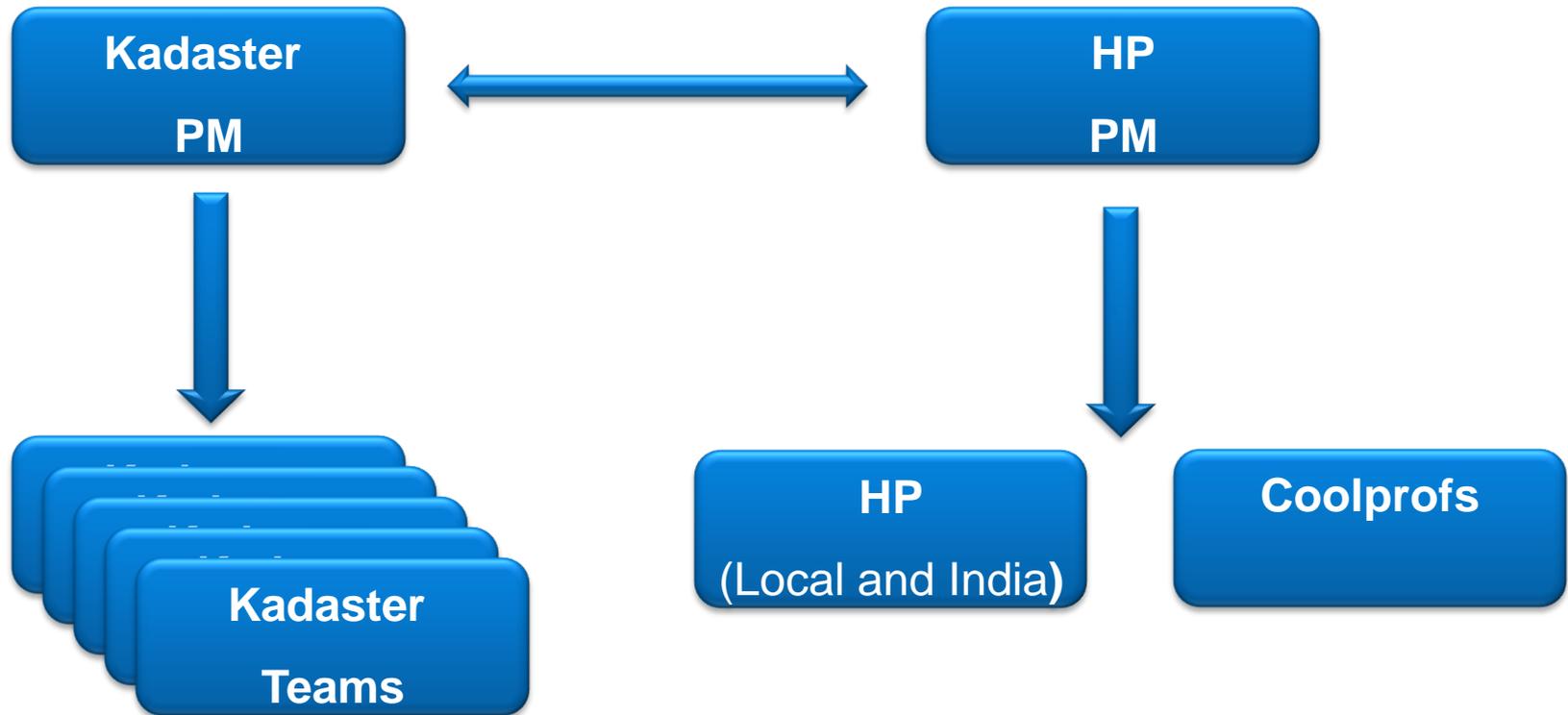
Introduction

- Kadaster INP program
 - Platform migration Tru64 -> HP-UX
 - Phase 1 – Hardware / software configuration
 - Phase 2 – Migration SAP applications
 - Phase 3 – Migration all other applications
- Phase 3
 - Standard software (e.g. Oracle)
 - Tailor made applications (including CA GEN)

CA GEN

- Initially CA GEN was not available on Itanium / HP-UX
- Confirmation from CA that CA GEN would be available, but it appeared that it was a 32 bits version
- Kadaster defined a migration strategy
 - Migrate applications with major CA GEN portion
 - For applications with limited CA GEN components, remove / replace CA GEN

Project structure



- Middleware, Databases
- Operations, Conf. Management
- Test team, etc, etc.

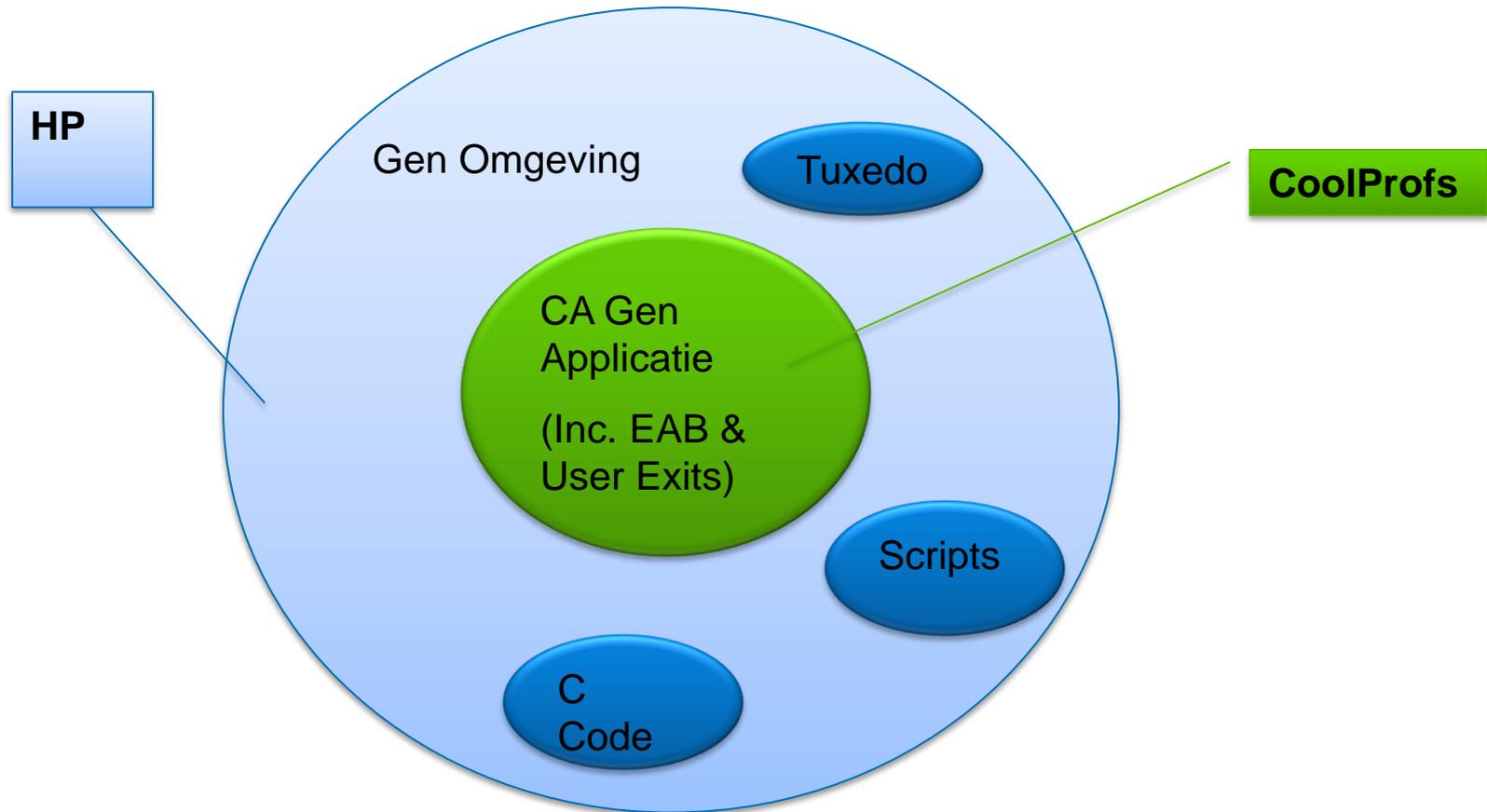
Phased approach

- Phase 1 – Preparation and infrastructure
 - Configure CA GEN V7.6 development environment
 - Configure C/Tuxedo proxy for GEN applications
 - Inventarisation and conversion 32-bits C components of Gen application GSK and IAA
 - Inventarisation GSK / IAA environment
- Phase 2 – Migration GSK / IAA
 - Support during testing
- Phase 3 – Migrate other CA GEN applications
 - Three increments
 - In total 9 applications (see next slide)

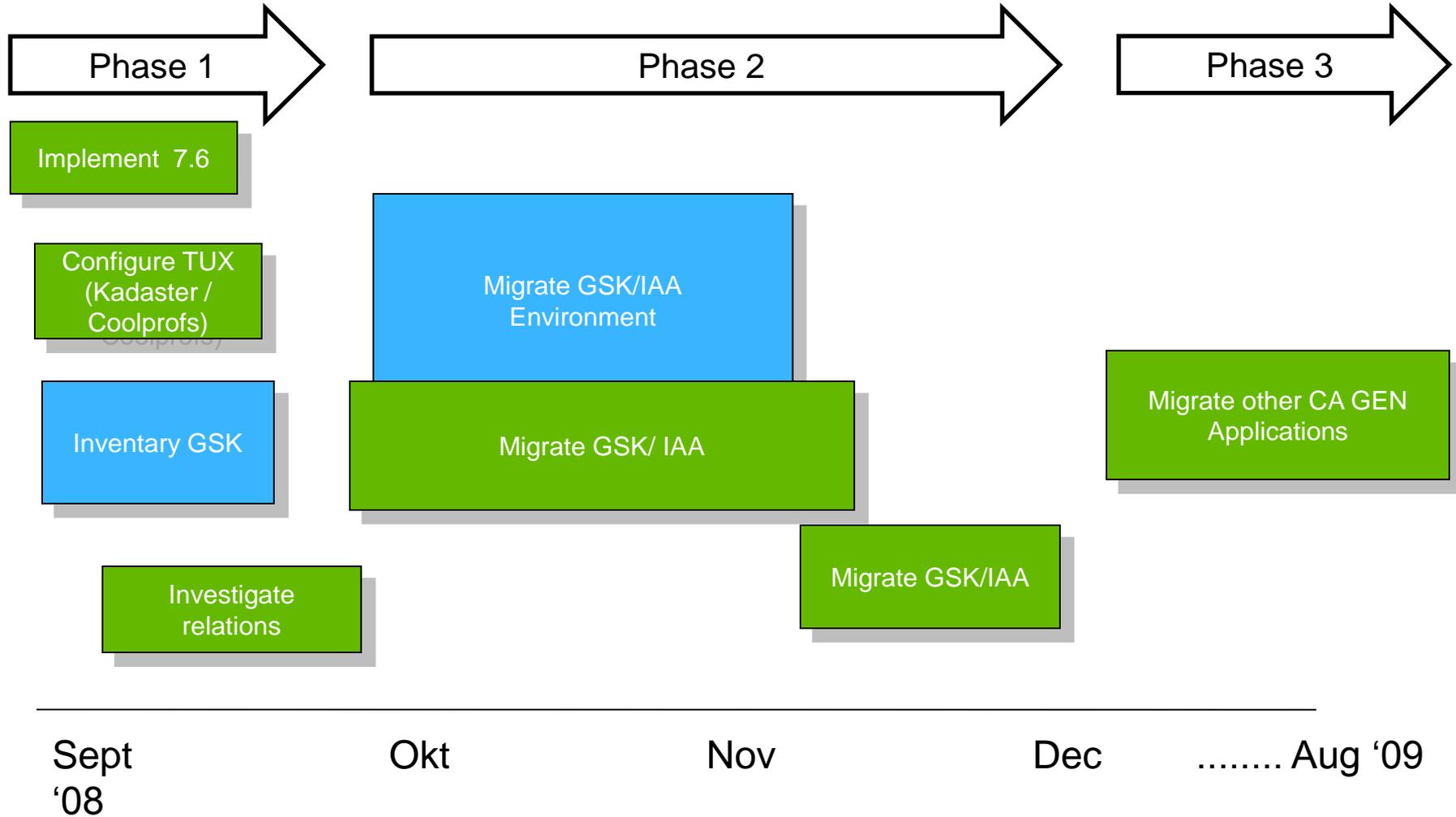
Project Scope (CA GEN Migration)

Applicatie	#PSTEP	#AB*	#EAB	#CRUD Stmts	#DB tabellen	Componenten (alleen server)
Elan	740	649	26	953	108	PID
Persoon	174	724	23	357	49	AAG, ANG, BEP, BRO, BST, HVS, KBR, KKC MUV, PBG, PPG, PRG, STU, SVI, TAO, VEP, VGB, WST
KOL	318	69	7	342	52	POL
GSK	410	167	2	482	31	GSK
AA	32	173	4	175	18	BZE, ISV, KOB, MBF, RCH, ZRE
Adres	56	312	1	214	32	ADR,TPG
Dig.bijl.	19	63	4	34	5	DPM, DPS
IAA	63	35	2	99	11	IAA
Infra	17	115	26	24	4	GBC, GEN, STF, TSS, XML

Application Environment



Global Planning



HP / Coolprofs project team

- Coolprofs
 - Rogier van Appelen (PM and SPE)
 - Michel Coudron (SPE)
- HP
 - Wilbert Kroon (SA)
 - Rende Luitjes (SPE)
 - Harald Tempelman (SPE)
 - Frans Hartgring (SPE)
 - Wim Pijnenburg (PM)

The CA GEN migration

- Migration GEN applications supported by GEN
 - Smooth migration process
 - Some attention points (see next slide)
- 32 / 64 bits configuration
 - Complex Tuxedo configuration
 - Interfacing issues GEN – 3GL
- Global transaction issues due to 32 / 64 environment

CA Gen migration challenges

- Decimal precision (new math-lib)
- Mix of 6.5 and 7.6 Gen clients
- Read-only fields (Gen 6.5 default grey – Gen 7.6 default white)
- Timestamps in Oracle (microseconds are used)

Decimal precision (new math-lib)

- New math-library
- New **internal** data-type
- Replacement of RWFixed

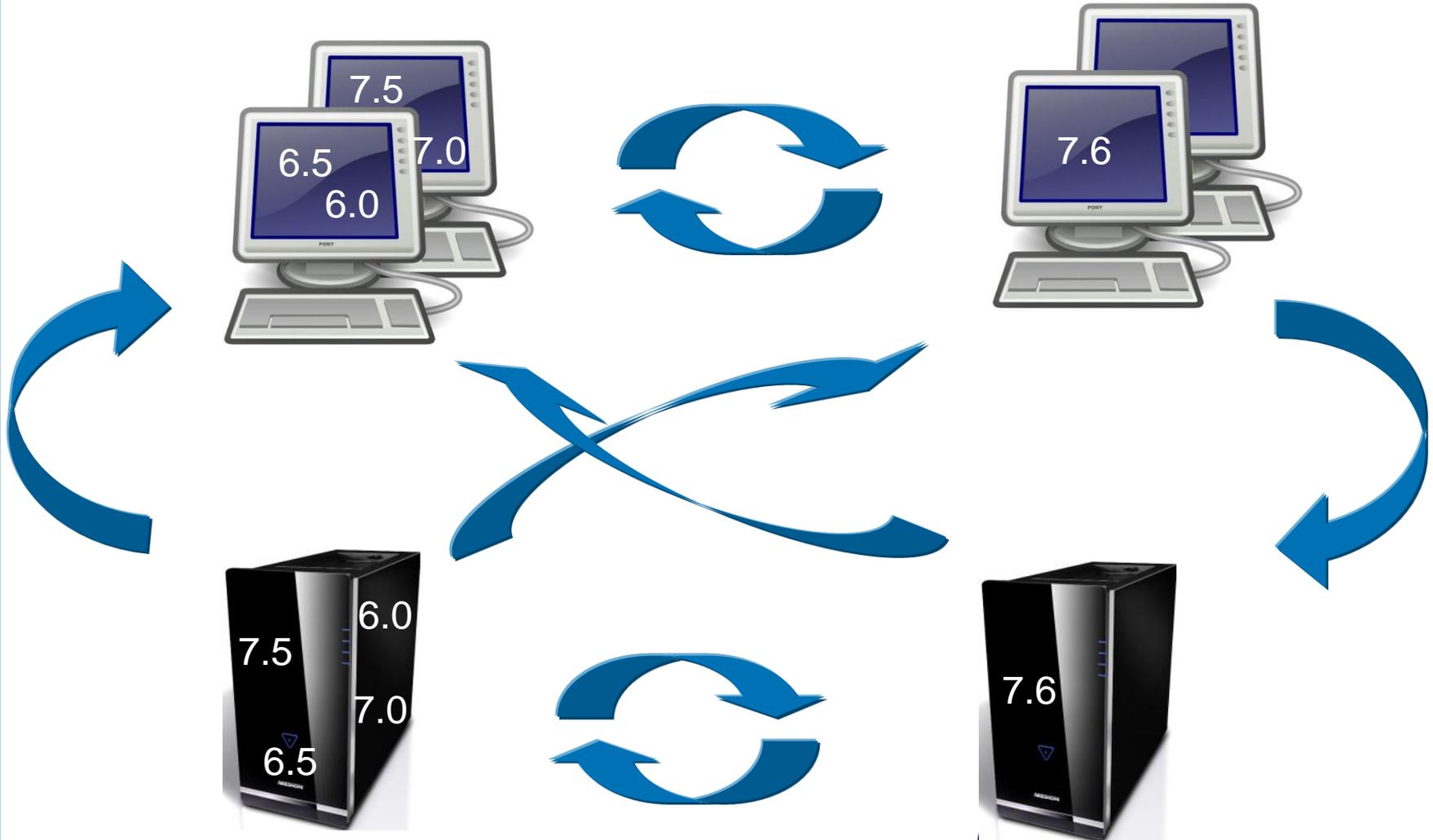
```
char attrib1_001as;  
rwfixed attrib1_001;  
(Old)
```

- Actions to take:
 - Generate new EAB stub
 - Replace and adjust code in EAB code

```
char attrib1_001as;  
DPrec attrib1_001[21];  
(New)
```

```
3.14159265358979323846264338327950288419716939937510582097494`.  
4592307816406286208998628034825342117067982148086513282306`.  
6470938446095505822317253594081284811174502841027019385211`.  
0555964462294895493038196442881097566593344612847564823...
```

Mix of 6.5 and 7.6 Gen clients



Situation at Kadaster

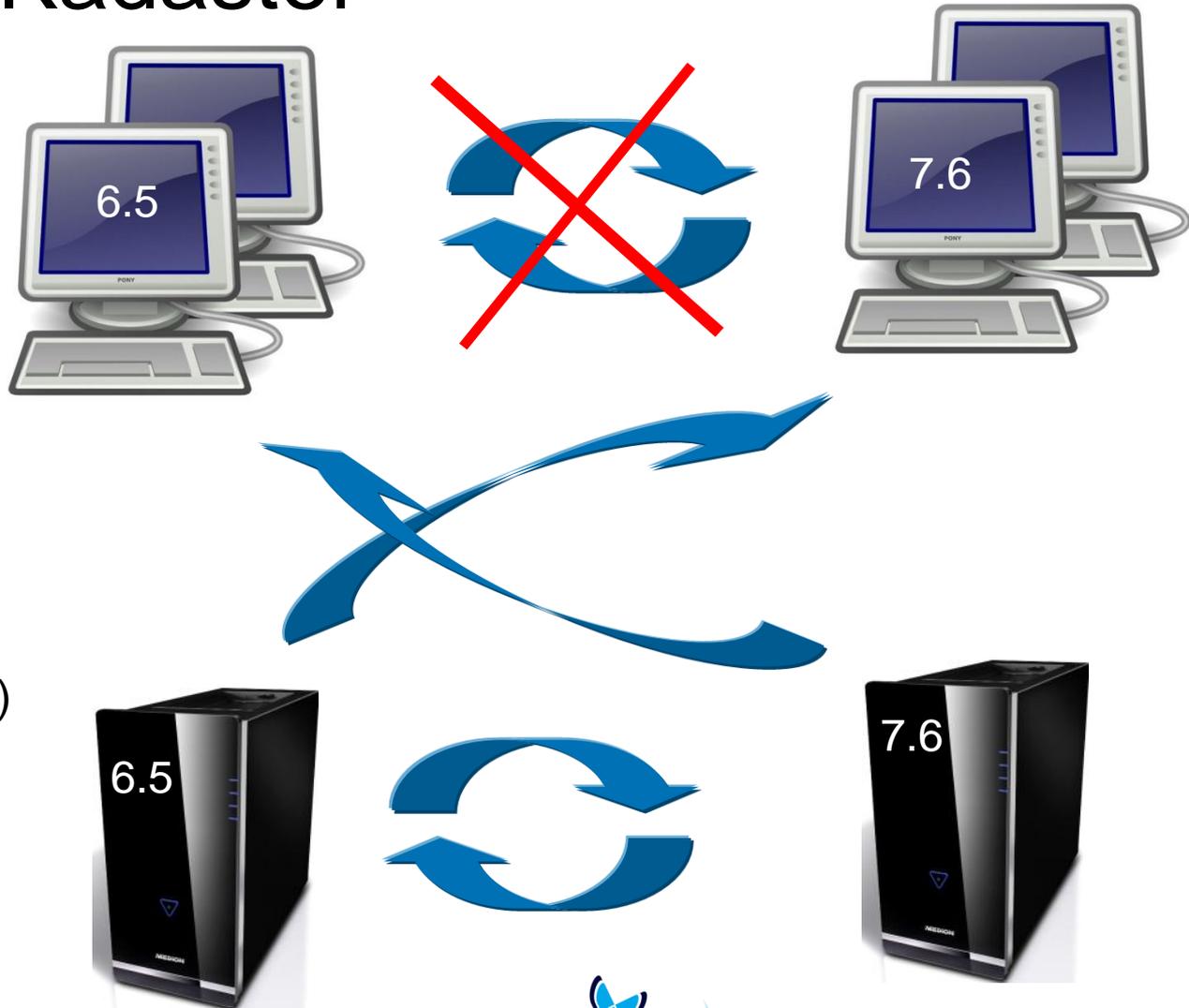
No Big Bang

Components have client and server part

How to handle client dependencies between clients of different components?

A solution:

Rename client load-modules (dll's/exe's) in 7.6



Solution for dependancies clients

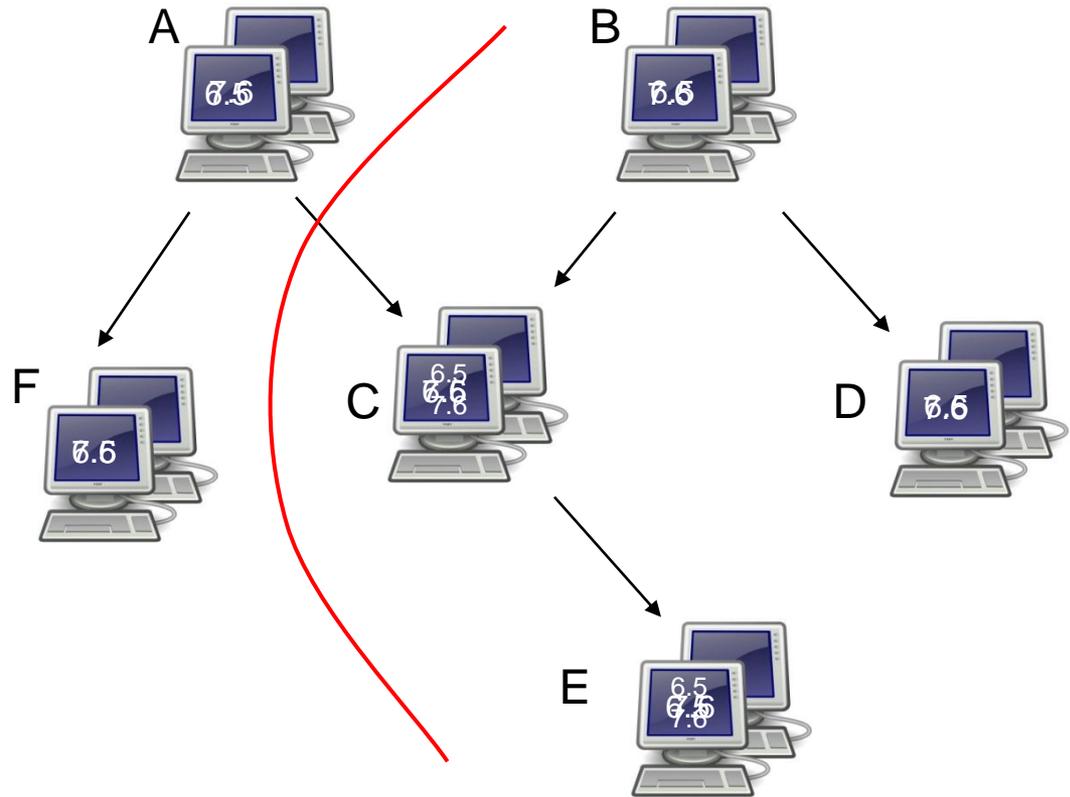
How to handle client dependancies between clients of different components?

A solution:

Rename client load-modules (dll's/exe's) in 7.6

Steps to perform:

- Migrate B first
- C,D and E have to go too
- But C and E are called from A as well
- **Temporary** deployment of identical 6.5 and 7.6 clients of C and E until A is also migrated



Contract structure

- Fixed price, Fixed date arrangements
- The good news.....we delivered on time and within budget!
 - Why ? See next slides

What went well...

- Phased approach
- Good inventory of application components
- Working relationship HP – Coolprofs – Kadaster
 - Open communication
 - Good working arrangements (CA GEN – 3 GL)
- One working location (HP and Coolprofs in one room)
- Close cooperation with Functional Owners of Kadaster
 - Agreement on freeze period
 - Agreement on work arounds



Area of improvement

- Get all disciplines in one room earlier in the project
- Verify promises made by business (freeze period)
 - Open changes / development
- Demand that everything is tested from beginning

Summary

- Very good project (for everybody)
- Good cooperation
- Let the specialist do his specialism
- Migration doesn't have to be a scary thing

Q & A

