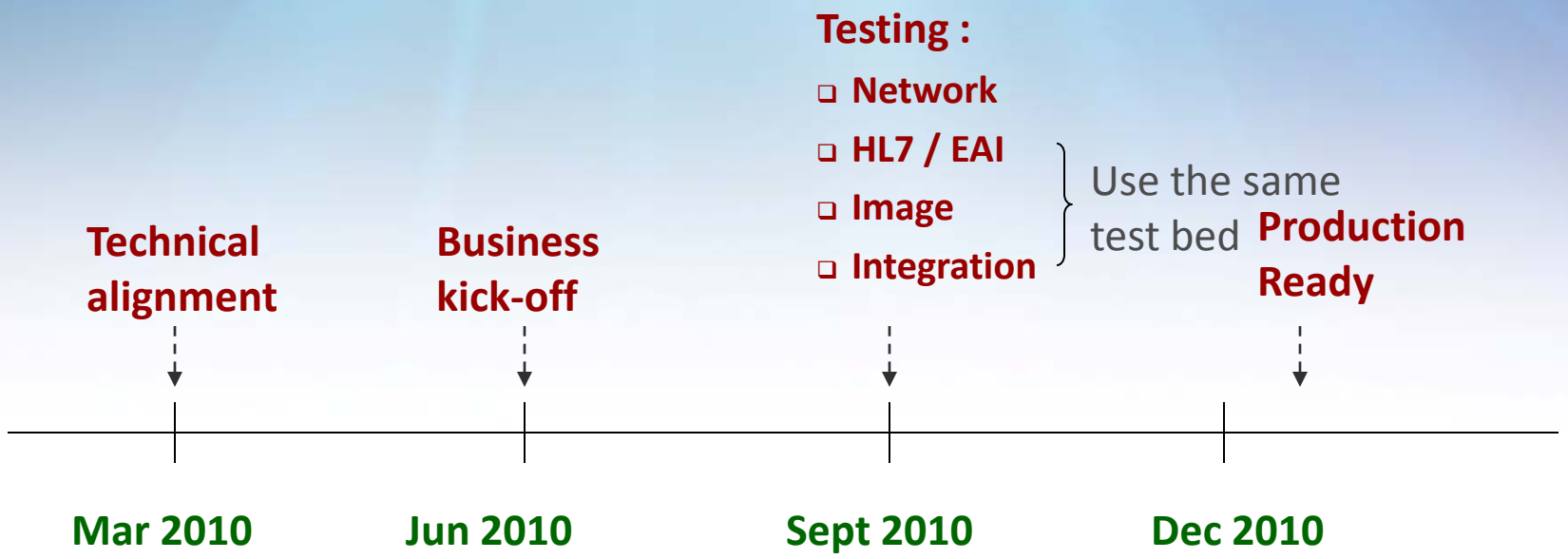
Radiology Image Sharing

Seminar with private hospitals / radiology facilities

Implementation & Operation

1st September,2010

Project Timeline



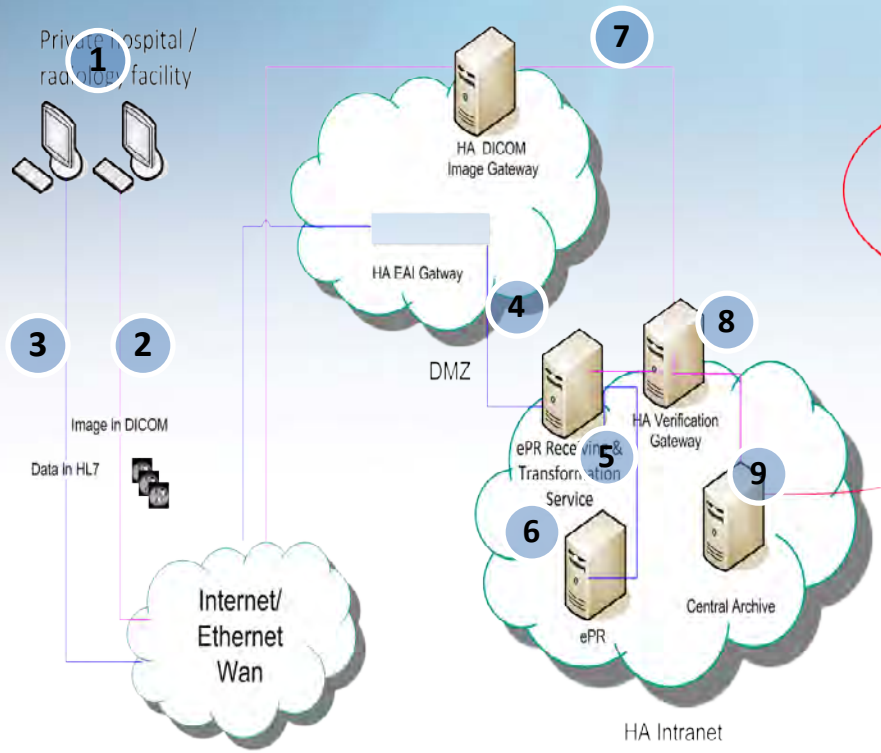
Testing

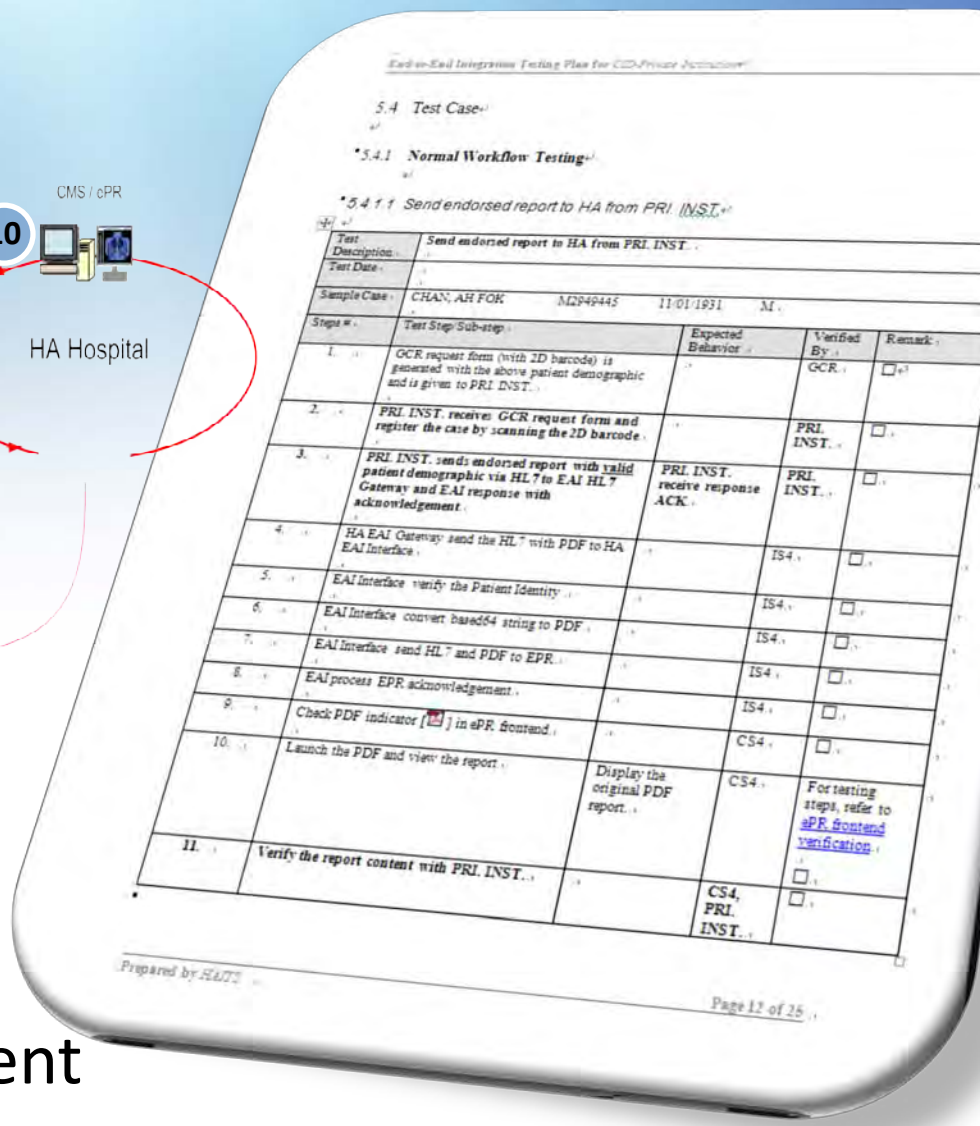
- Technical readiness assessment before testing
- Time Block System for testing of HL7, Image, Integration

Technical Readiness Assessment

- Site-to-site IPSec network readiness
- Able to capture 2D-barcode
- DICOM readiness
  - DICOM compliance radiology services (e.g CT 16bit)
- HL7 Message readiness
  - MSH, PID, ORC, OBR, OBX
- Accession number
- PDF requirement fulfilled
- Exam report required to be sent before image transfer
- Health check/Alert email account
- ….

Testing





5.4 Test Case

5.4.1 Normal Workflow Testing

5.4.1.1 Send endorsed report to HA from PRI INST.

Test Description	Send endorsed report to HA from PRI. INST.			
Test Date				
Sample Case	CHAN, AH FOK M2949445 11/01/1931 M			
Steps #	Test Step/Sub-step	Expected Behavior	Verified By	Remark
1.	GCR request form (with 2D barcode) is generated with the above patient demographic and is given to PRI. INST.		GCR	☐
2.	PRI. INST. receives GCR request form and register the case by scanning the 2D barcode.		PRI. INST.	☐
3.	PRI. INST. sends endorsed report with valid patient demographic via HL7 to EAI HL7 Gateway and EAI response with acknowledgement.	PRI. INST. receive response ACK.	PRI. INST.	☐
4.	HA EAI Gateway send the HL7 with PDF to HA EAI Interface.		IS4	☐
5.	EAI Interface verify the Patient Identity.		IS4	☐
6.	EAI Interface convert based64 string to PDF.		IS4	☐
7.	EAI Interface send HL7 and PDF to EPR.		IS4	☐
8.	EAI process EPR acknowledgement.		IS4	☐
9.	Check PDF indicator [ ] in ePR frontend.		CS4	☐
10.	Launch the PDF and view the report.	Display the original PDF report.	CS4	For testing steps, refer to ePR frontend verification. ☐
11.	Verify the report content with PRI. INST.		CS4, PRI. INST.	☐

Prepared by HATS

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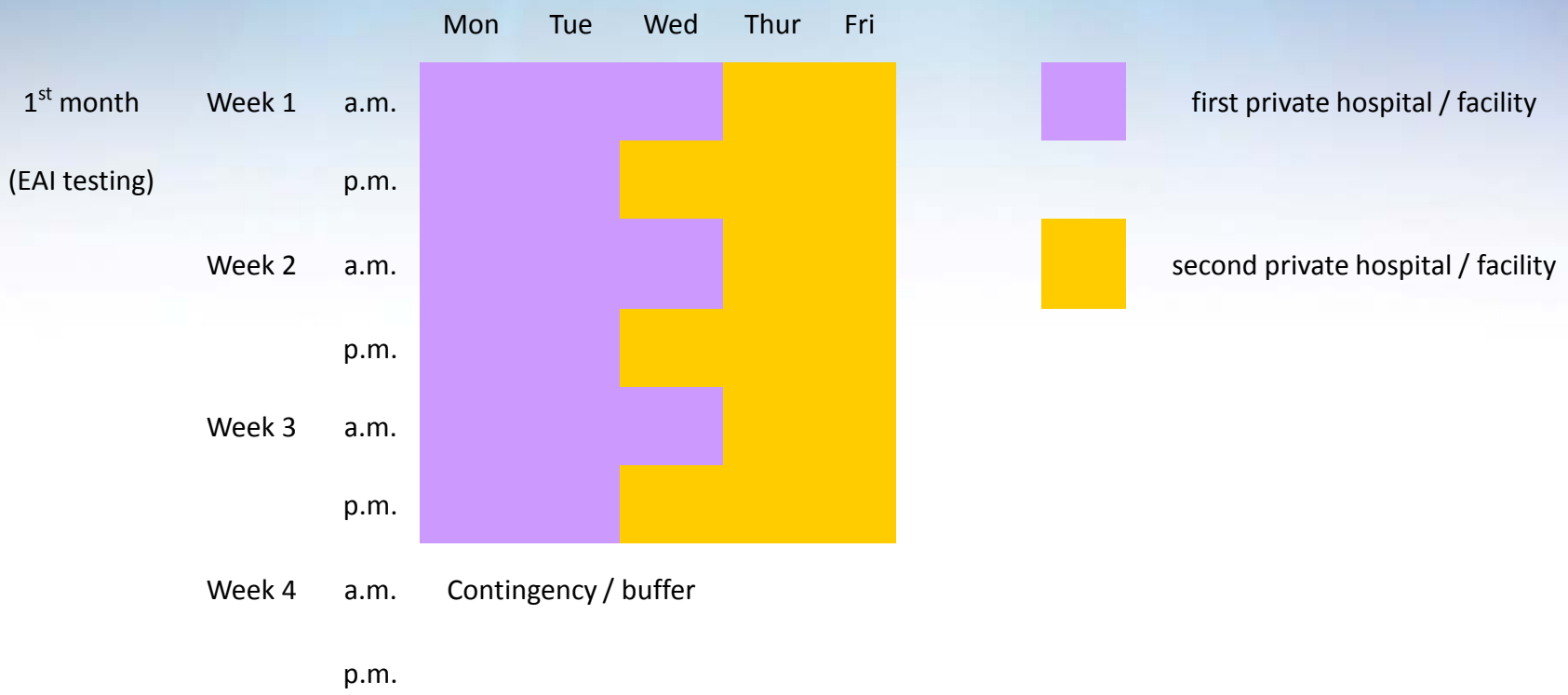
- Multiple parties involvement
- Shared testing environment

Time Block System



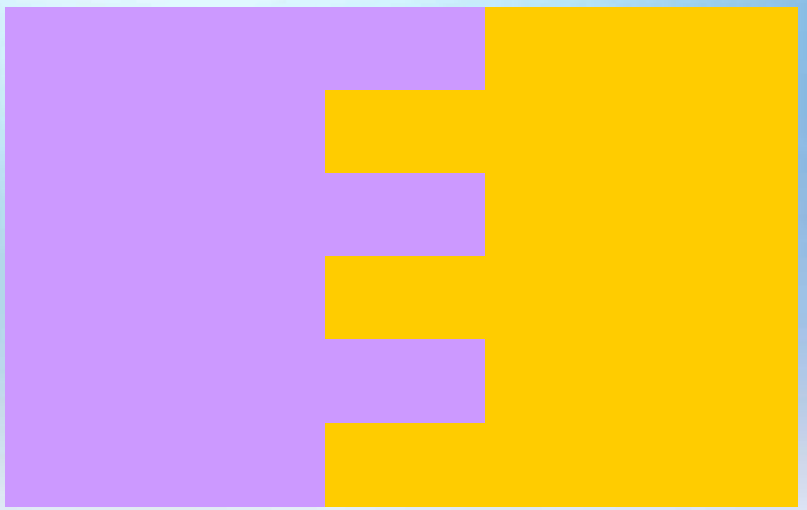
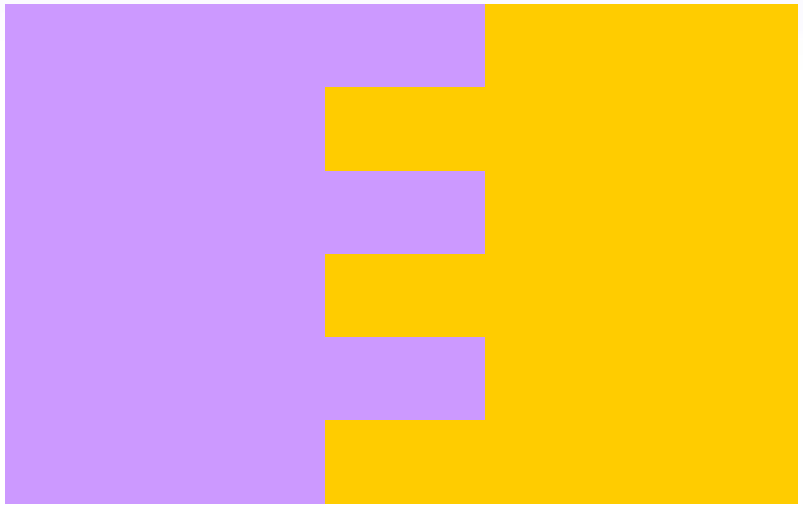
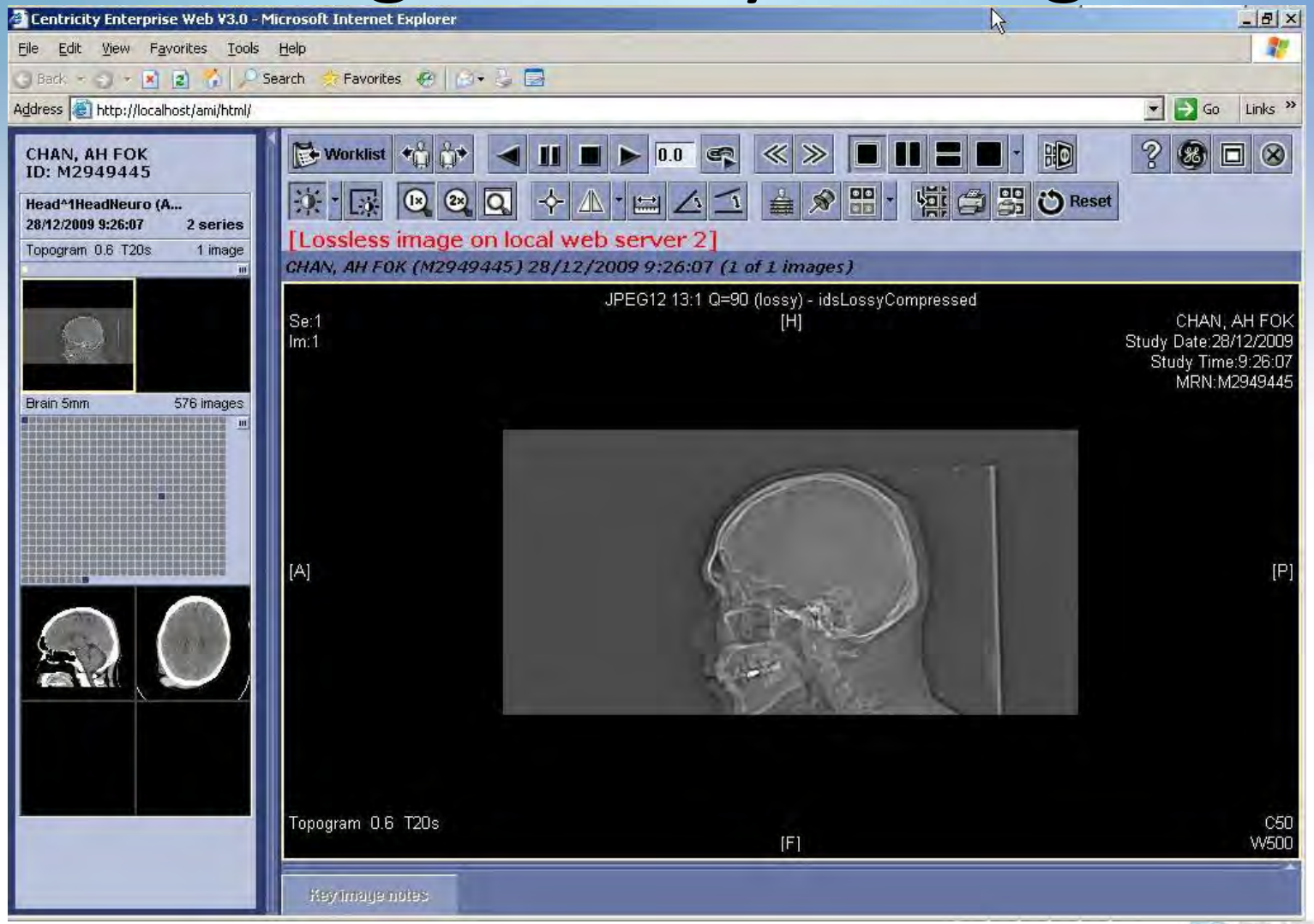
2nd month	Week 5	a.m.	
(Image testing)		p.m.	
	Week 6	a.m.	
		p.m.	
	Week 7	a.m.	
		p.m.	
	Week 8	a.m.	Contingency / buffer
		p.m.	
3rd month	Week 9	a.m.	
(Integration testing)		p.m.	
	Week 10	a.m.	
		p.m.	
	Week 11	a.m.	
		p.m.	
	Week 12	a.m.	Contingency / buffer
		p.m.	

Image Quality Testing



Contact Points from HA

- Overall business
- Overall IT
- Network
- EAI HL7 gateway
- DICOM gateway & Imaging
- Project Coordinator

Implementation & Live

- Production preparation - 1 month
- Business & technical readiness
- At beginning of system live
  - Closely monitor for first 4-5 cases
- After this observation period and without any major problem, system will go into normal production support.
- Transmission time from Private to HA : ~30 min

Support

- Daily Health Check (email)
  - List of reports and images sent to HA
- Alert (email) - Immediately
  - Exception Handling
  - Example: Patient name mismatched
- Incident/Service Request
  - Service Desk
  - Previous Incidents:
    - Large amount of duplication data sent
    - Non-schedule downtime arrangement

Summary of Implementation and Operation

- Project Timeline
- Readiness Assessments
- Time Block System
- Image Quality Checking
- Live and Support Arrangement

Implementation & Operation

THE END

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CD Content

1. Summary Brochure
2. Business Process Diagram (End-to-end workflow)
3. Network Specification
4. GCRS Barcode Specification
5. HL7 Mapping Specification
6. PDF Format Specification
7. DICOM Image Gateway Conformance Statement

Seminar on Radiology Image Sharing

QUESTION

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