



University „Goce Delcev“ - Stip

Forefront Identity Manager 2010 implementation

Partners

Microsoft[®]

 **InTec System**[®]
WHERE CREATIVITY AND TECHNOLOGY INTERSECT

Login Systems

...подобриот начин

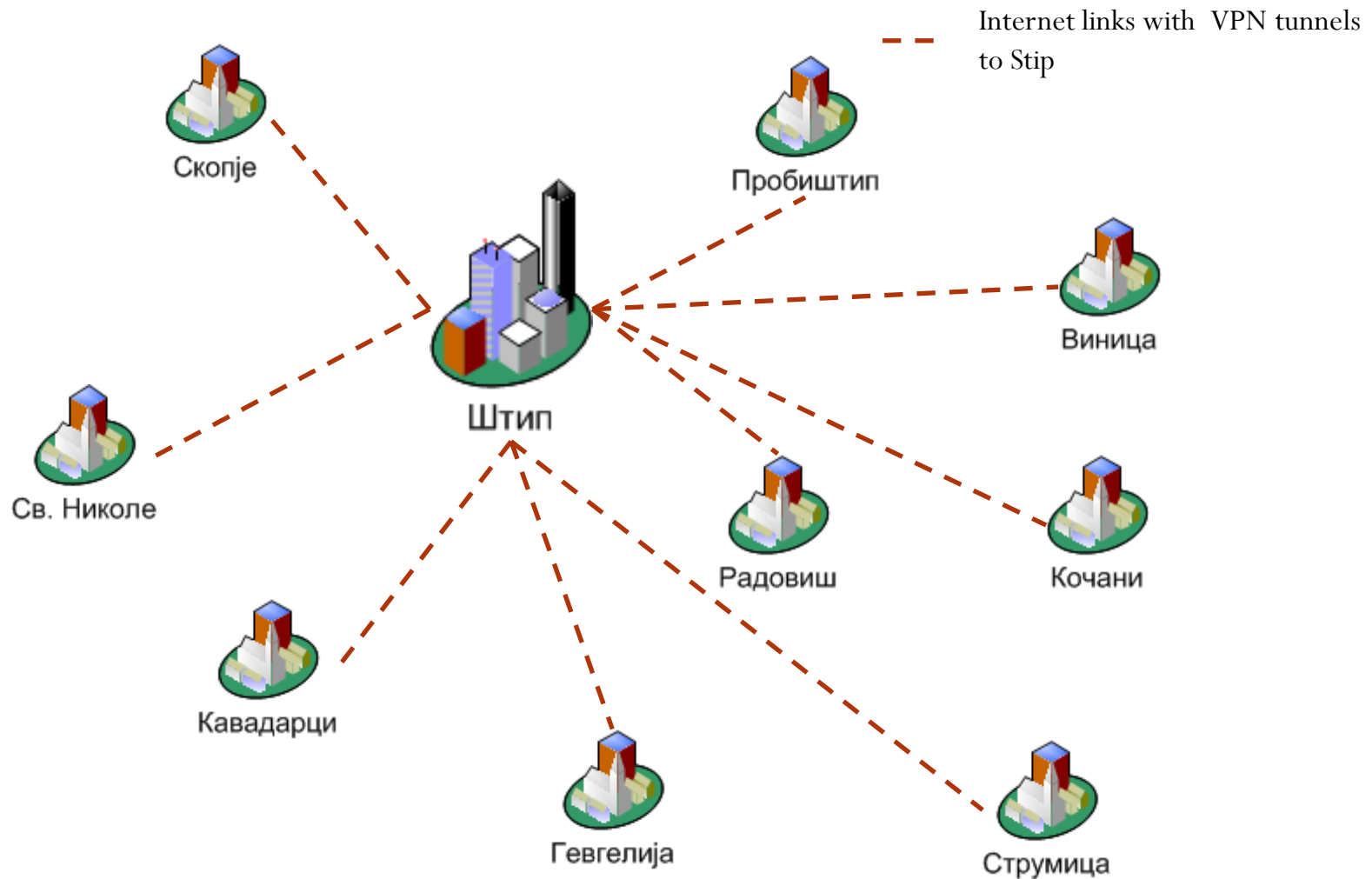
Contents

- Presentation of the University "Goce Delchev" – Stip and its informational system
- The role and method of involvement of Microsoft Consulting Services in the performance of the decision
- Intec Systems and Gemalto part in the performance of the decision
- Experiences and recommendations

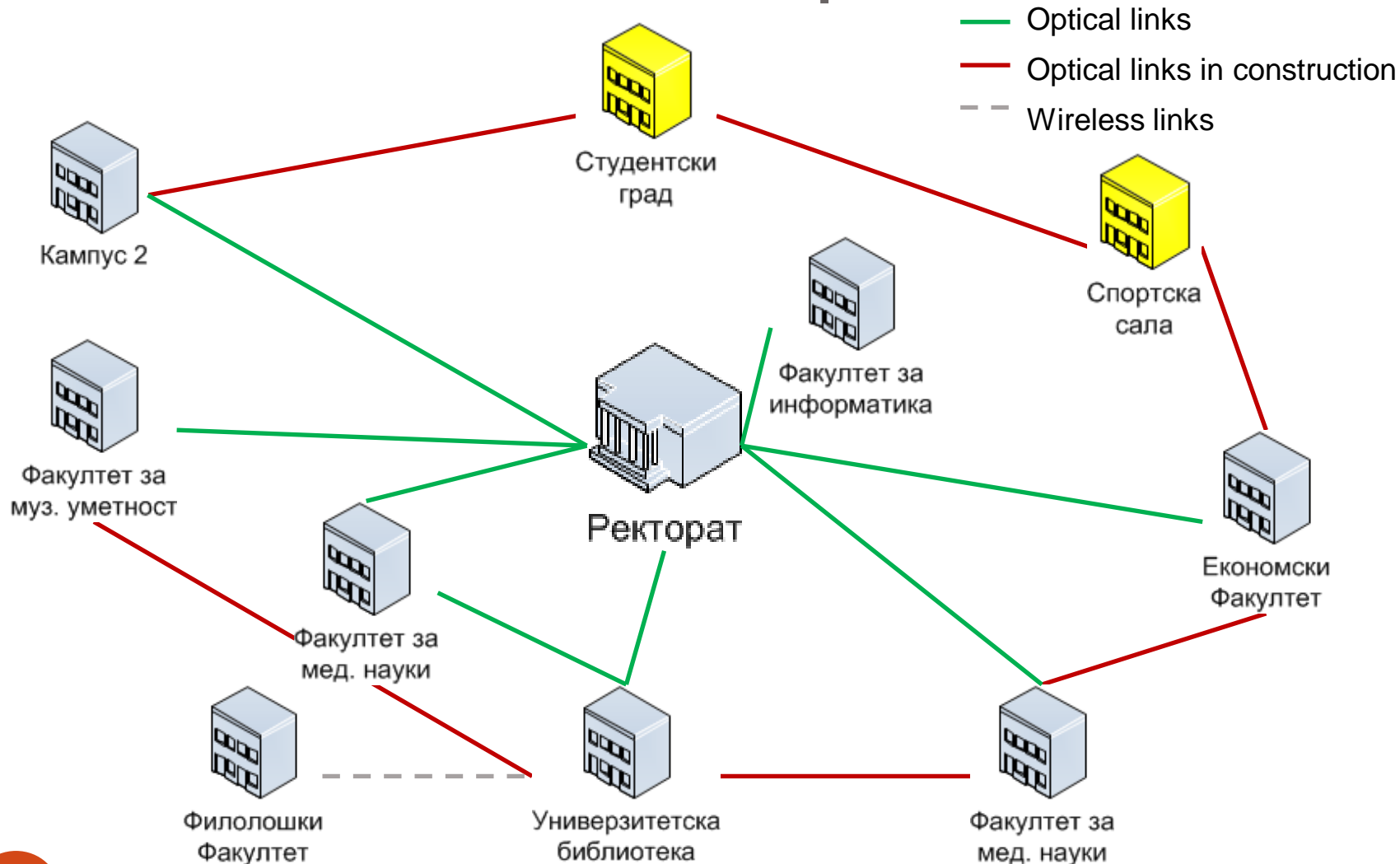
General information

- Established in 2007
- Elected rector Prof. Dr. Sasa Mitrev
- More than 13.000 students and 500 employees at the moment
- 1.200 PC's and up to 50 servers
- 10 Campuses located in different cities
- 10 Campuses in Stip

Infrastructure



Infrastructure in Stip



User profiles

- Students
 - undergraduate
 - Master studies
 - PhD studies
- Employees
 - Administration
 - Teachers (associates, visiting...)
 - Student Services
 - Other personnel
- IT Staff
 - Administrators
 - Technical staff
 - Help desk

Student services

- Mail
 - Microsoft Live@EDU
- Learning gateway
 - Moodle
- Student files
 - Microsoft Dynamics CRM
- Video conferencing
 - Polycom
- Wireless internet access
 - Cisco, Microsoft NAP

Microsoft®
Live@edu



Employee services

- Mail
 - Microsoft Exchange 2010
- Telephony
 - Cisco UCM, Cisco IP Phones
 - Microsoft Exchange 2010 UM
- IM, A/V Conferencing, Desktop sharing
 - Microsoft Office Communicator
- Document management
 - Xerox DocuShare
- Wireless internet access
 - Cisco, Microsoft NAP

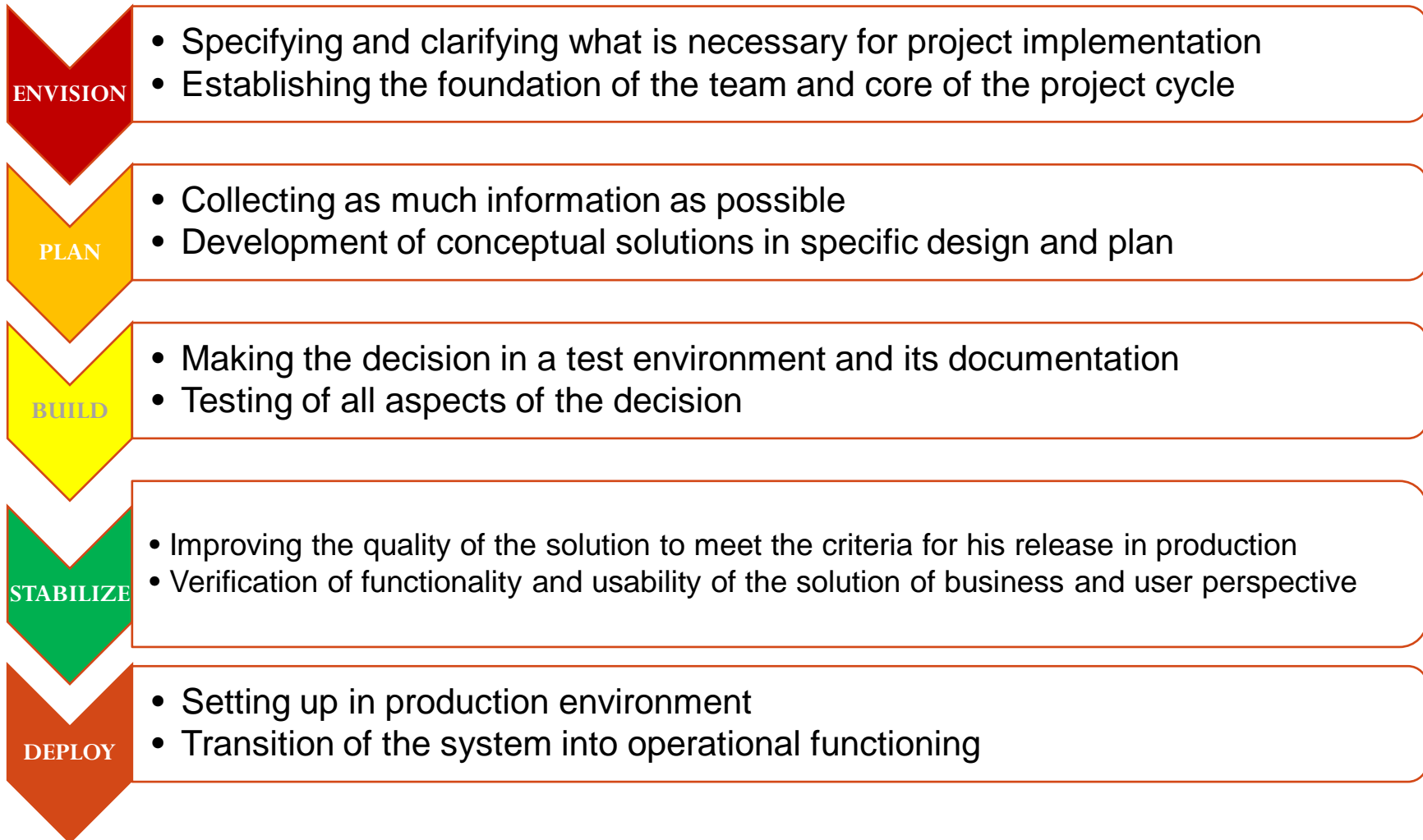


Challenges

- Unique user name and password for all
- Time and attendance tracking system
- Two-factor authentication
- Student/employee ID card



Implementation stages





Demands

- High level of automation, easy for use, high level of availability

IT Infrastructure

- **Various vendor based technology**
- Windows Server 2008
 - AD DS
 - MS SQL 2008
 - MS Exchange 2010
 - MS SCCM 2007
 - AD Certificate Services
- **Vmware virtualization technology**

Administration and maintenance

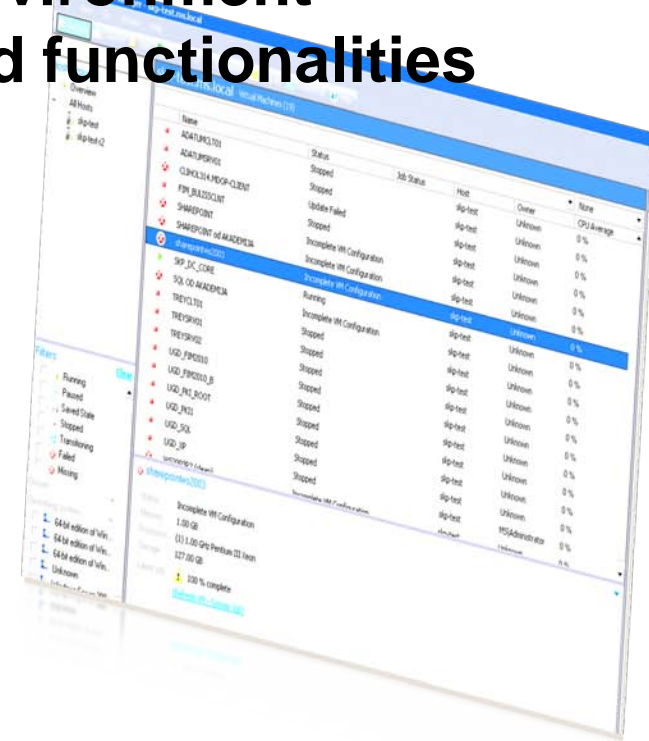
- Small team and helpdesk, no user defined roles, large number of critical systems, large number of helpdesk demands.



- **40% of the time spent on this stage**
- **Functional specs (What are we going to build?)**
- **Conceptual design (How will we build it?)**
- **Timeline of activities (When will we build it?)**
- **Are we ready to build?**



- **Building the system in test environment**
- **Implementation of the planned functionalities**
- **Testing**
- **Testing**
- **Testing**





- **The process of bringing the solution to an acceptable level of quality and functionality performed by testing and correction system**
- **Implementation of the solution in production environment**
- **Testing of all aspects of the decision of an isolated group of users – Pilot users**



- **Large overlap of activities performed in the phase of stabilization**
- **Preparing the physical infrastructure through GPO, distribution of necessary client agents, installing enrollment kiosks...**
- **Operating and maintenance of the system**

PKI decision contents

PKI based on Windows Server 2008 R2

1 Offline Root CA

2x Enterprise Issuing CA

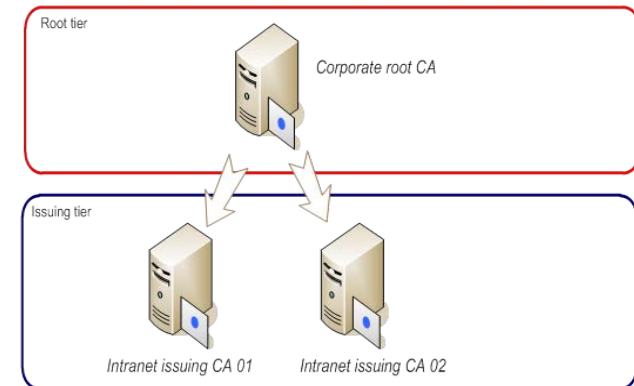
CRL and AIA publish via AD DS and IIS 7.0

Certificate templates

- Vraboten Standard
- Vraboten Encryption
- Student Standard

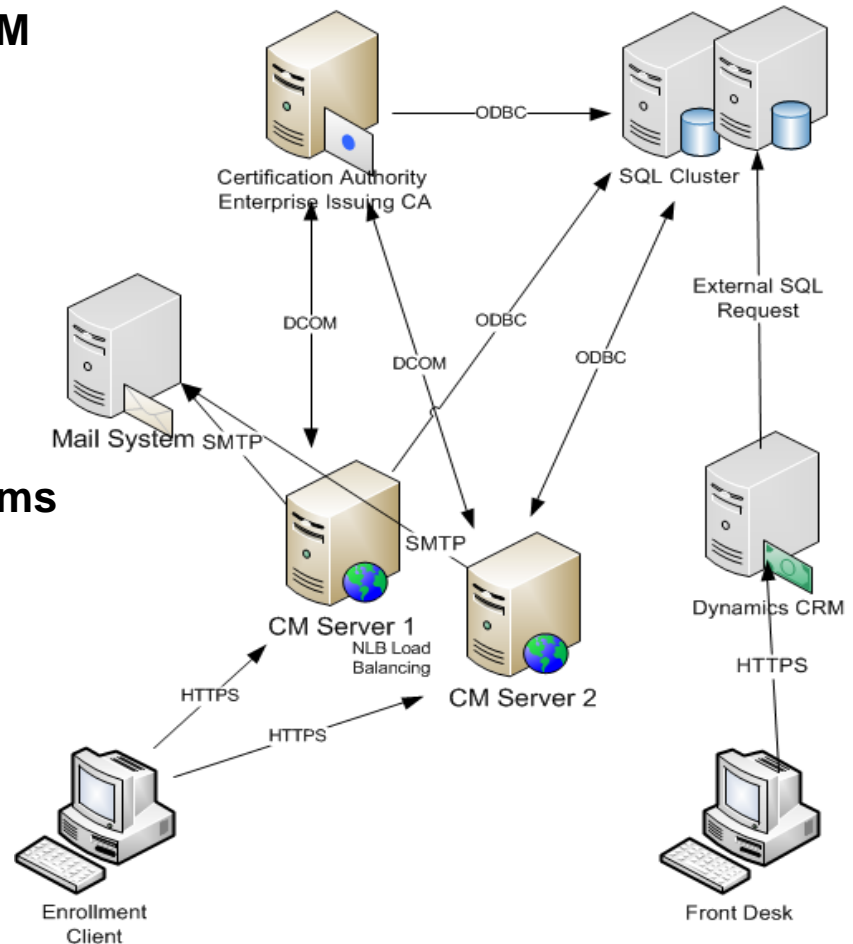
Use of certificates

- Authentication (Domain Logon, Application logon, Wi-Fi Access)
- E-Mail signing
- Disk and data encryption



FIM 2010 CLM decision contents

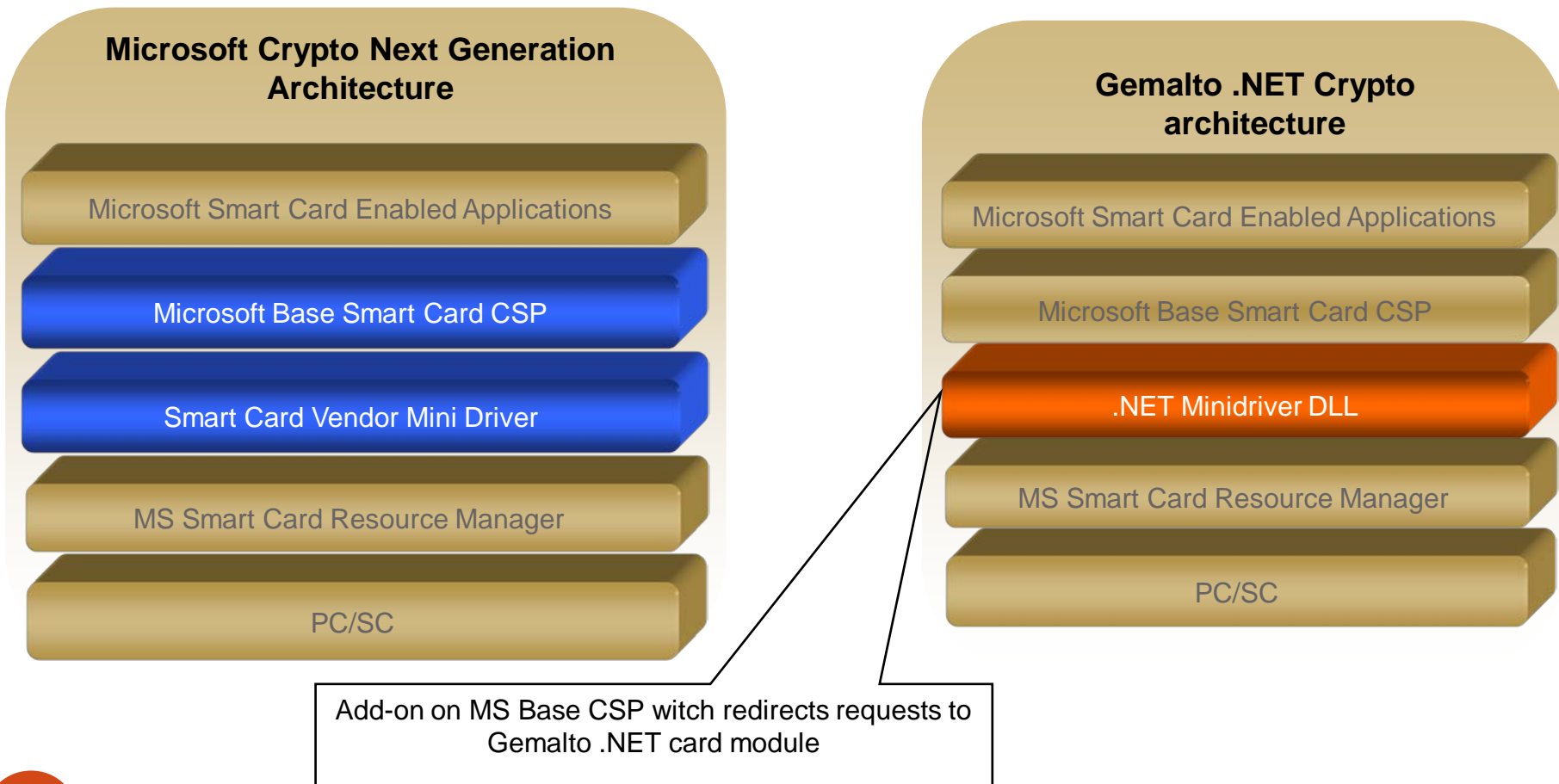
- FIM CLM Application - NLB Cluster FIM 2010 CLM servers
- MS SQL 2008 Failover Cluster Backend DB
- FIM 2010 client component
- Self Service user portal
- Administration and configuration portal
- FIM CM SQL API for interaction with other systems
- Profile templates for students and employees
- Smart Card Middleware and Enrolment
- Smart card printing



Smart Cards

- **Gemalto Hybrid Smart Card .NET + EM4100 contactless chip**
 - **.NET framework on SmartCard**
 - **Easy integration in Microsoft environment**
 - **Microsoft Base Smartcard CSP support**
 - **CMS Microsoft CMS/FIM 2010 preferred**
 - **.NET SDK integration with Microsoft Visual Studio**

Gemalto .NET implementation on WSCF



Experiences

- Complex system of permissions and role separation
- Profile Templates and Certificate Templates – crucial in the further exploitation period
- Investments in compatible components
- Condition of existing infrastructure
- Concomitant use of x86 and 64bit clients
- Client works through IE 6.0 +

Recommendations

- The complexity of the system requires thorough planning
- Using virtual environment
- Document every step in the development and implementation of the system
- Test the entire system after each change
- Use separate user accounts for each user role even if the same person is in question
- In system with more than 10,000 users there are no "minor" changes

Q&A



Thanks for
the attention