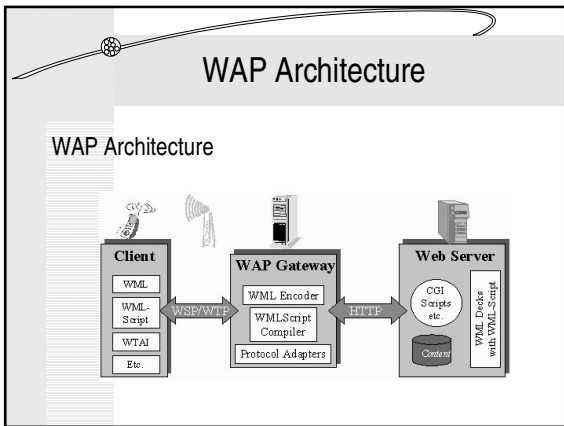


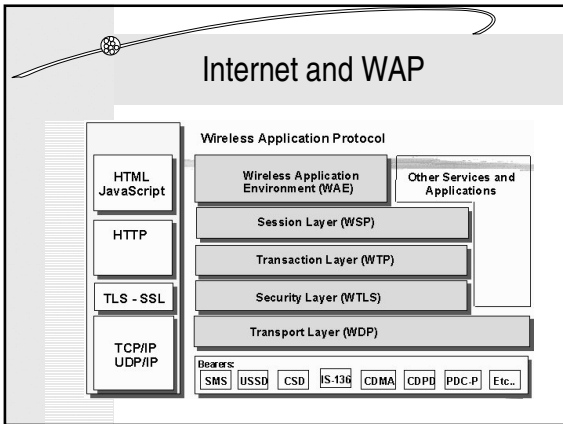
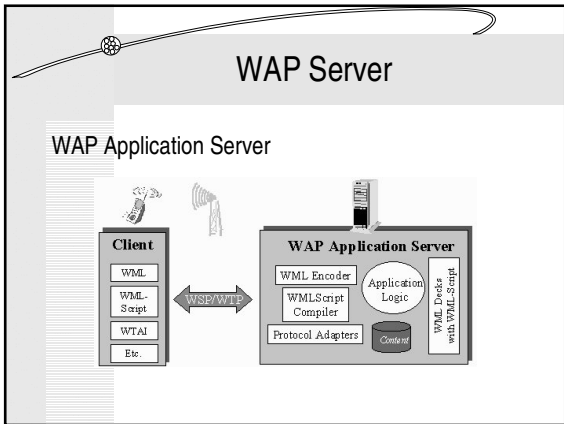
# WAP and SyncML Overview

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- ## What Is WAP?
- ✦ Wireless Application Protocol
  - ✦ Phone.com, Nokia and Ericsson
  - ✦ Serve internet to wireless clients
  - ✦ A list of protocols and specifications
  - ✦ Current version WAP 1.2



- ## WAP Gateway
- ✦ Encoder: converts WML to tokenized WML
  - ✦ Adaptor: provides additional information through Http header
  - ✦ Translate HTTP requests.
  - ✦ Convert between SSL and WTLS
  - ✦ Convert transport protocols (TCP and WDP)



## WAE

- ✧ WAE: Wireless Application Environment
  - WML Microbrowser
  - WMLScript Virtual Machine
  - WMLScript Standard Library
  - Wireless Telephony Application Interface
  - WAP Content Types



## WML

- ✧ Wireless Markup Language
- ✧ Based on XML
 

```
<?xml version="1.0"?>
<!DOCTYPE wml PUBLIC "-//WAPFORUM/DTD WML 1.1//EN"
"http://www.wapforum.org/DTD/wml_1.1.xml">
<wml>
  <card id="mycard" title="My first card">
    <p>Hello World!</p>
  </card>
</wml>
```

## Image Support

- ✧ WBMP Format
- ✧ 1-bit: black and white

## WAP Security


- ✧ [WAP device]-----[WAP gateway]-----[Content server]  
 <---WTLS--->{unprotected}<---SSL--->
- ✧ SSL and WTLS not compatible. WAP gateway does the work.
- ✧ WTLS:
  - Data integrity
  - Privacy
  - Authentication
  - Denial-of-service protection

## WAP Resources

- ✧ WAP specifications:  
<http://www.wapforum.org/what/technical.htm>
- ✧ WAP authoritative source:  
<http://www.wapforum.org>
- ✧ FAQ: <http://www.allnetdevices.com/faq/>
- ✧ A little demo

## What Is SyncML

- ✧ An open industry specification for universal data synchronization
- ✧ Target: easy data synchronization between any device and application, over any network



## Who Is SyncML

- ✦ Over 600 supporting companies
- ✦ Core group of sponsors

## SyncML Applications

## Synchronization Protocol

## SyncML Architecture

## SyncML Package

SyncML Message

SyncML Header

SyncML Body

SyncML Command

SyncML Command

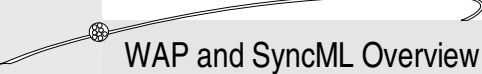
Defined by SyncML DTD

## Transport Bindings

- ✦ SyncML Transport independent
  - 3 default transports bindings are defined
  - Binding specifies how exchange messages and responses over a specific medium
- ✦ Default bindings

SyncML		
HTTP	WSP	OBEX
Internet/ Intranet	WAP	IrDA, USB, Bluetooth

- ✦ Future bindings: email or message queues



WAP and SyncML Overview

Thanks!

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