

EMIT

Epidemic Mobile Information Transfer

Referent: Jonas Kress



Epidemiology meets informatics

Content

- Basics
- Architecture /
Implementation
- Applications
- Result



Welcome to the information era

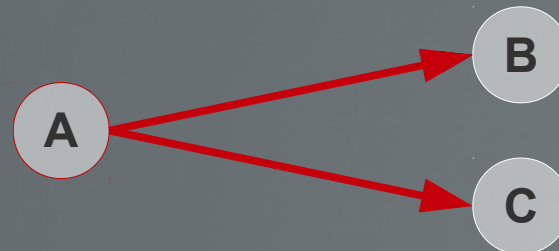
Introduction

- Epidemic?
- Mobile?
- Platform?

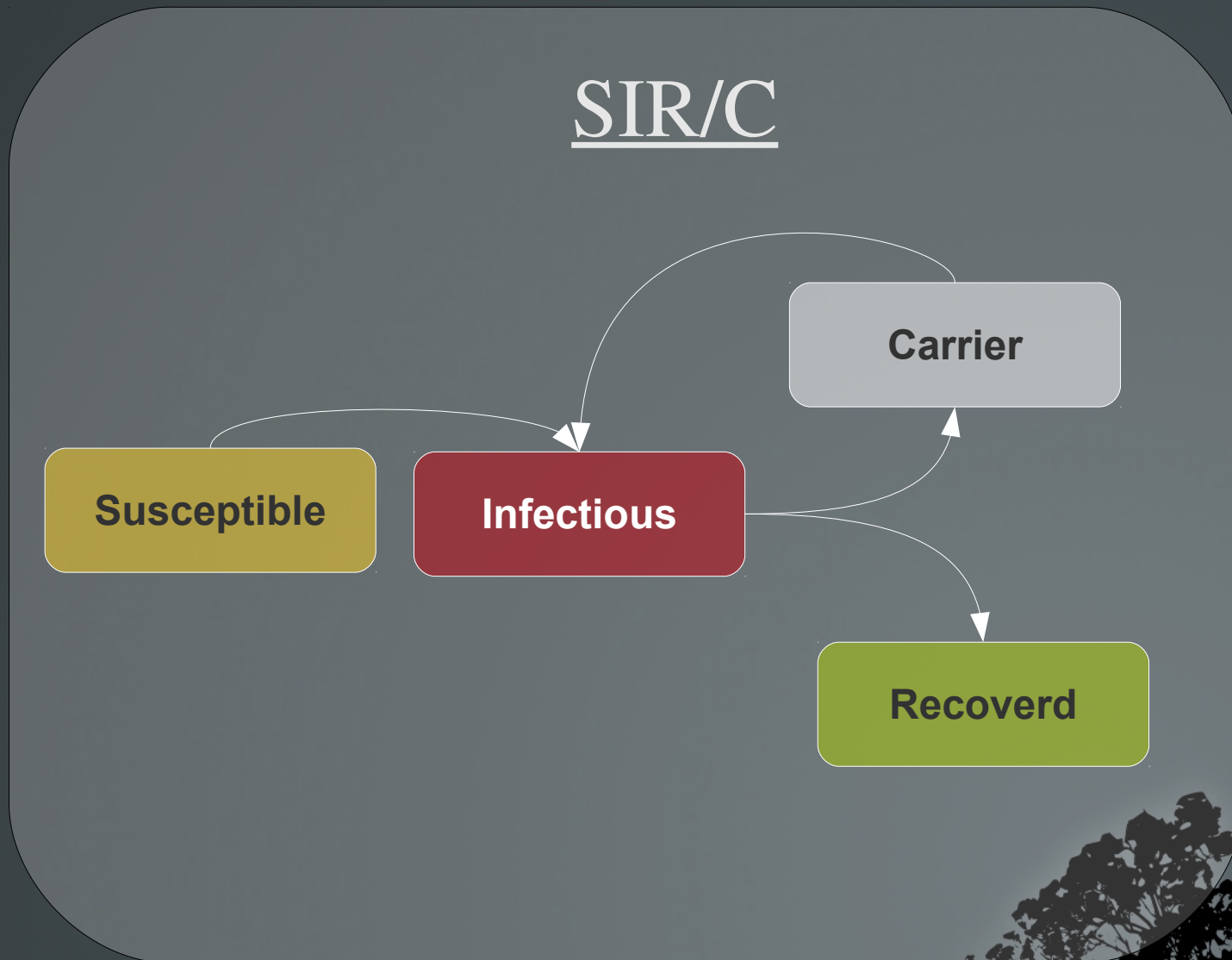


Basics – Definition

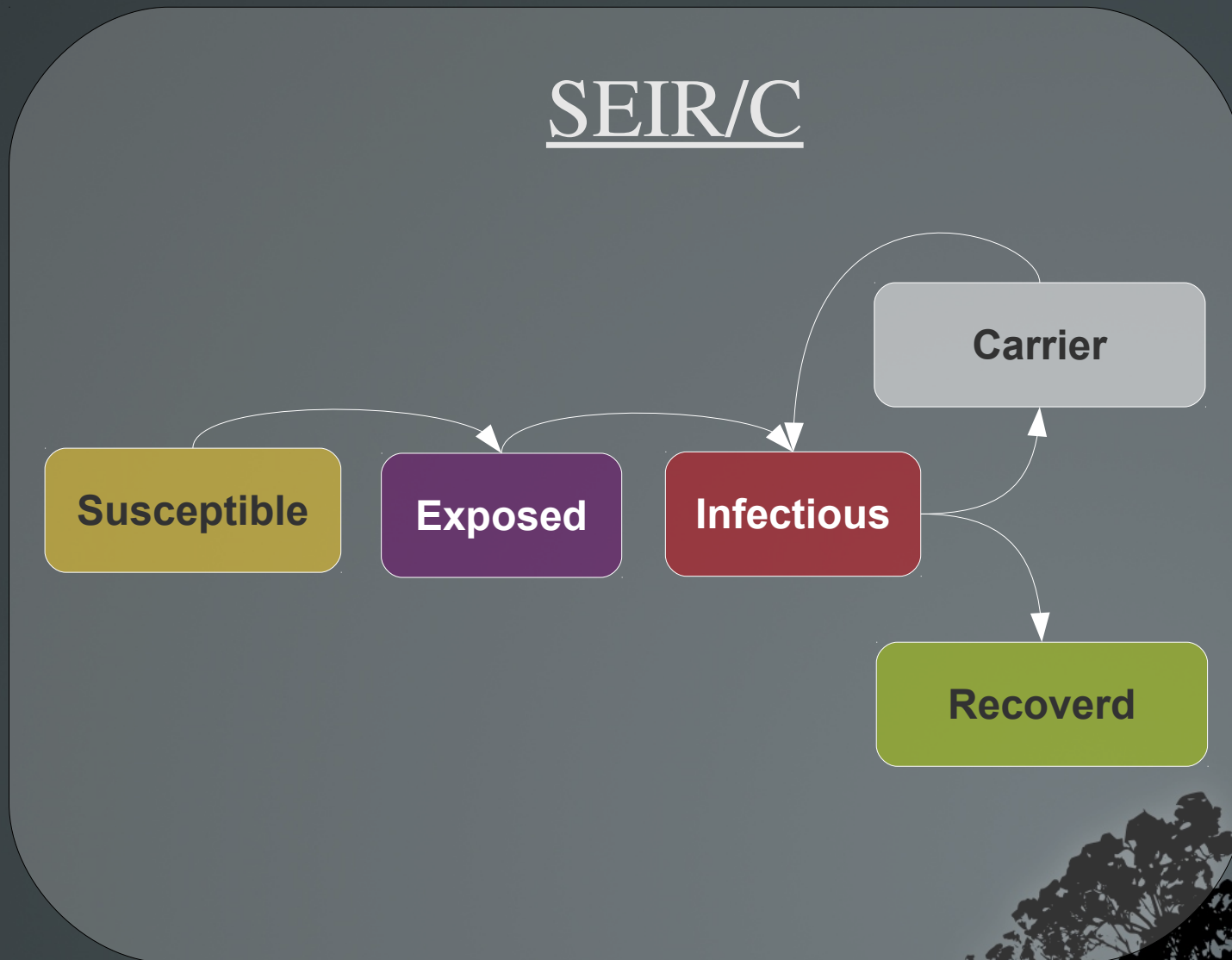
- Biology
- Infectious disease
- Reproduction rate > 1



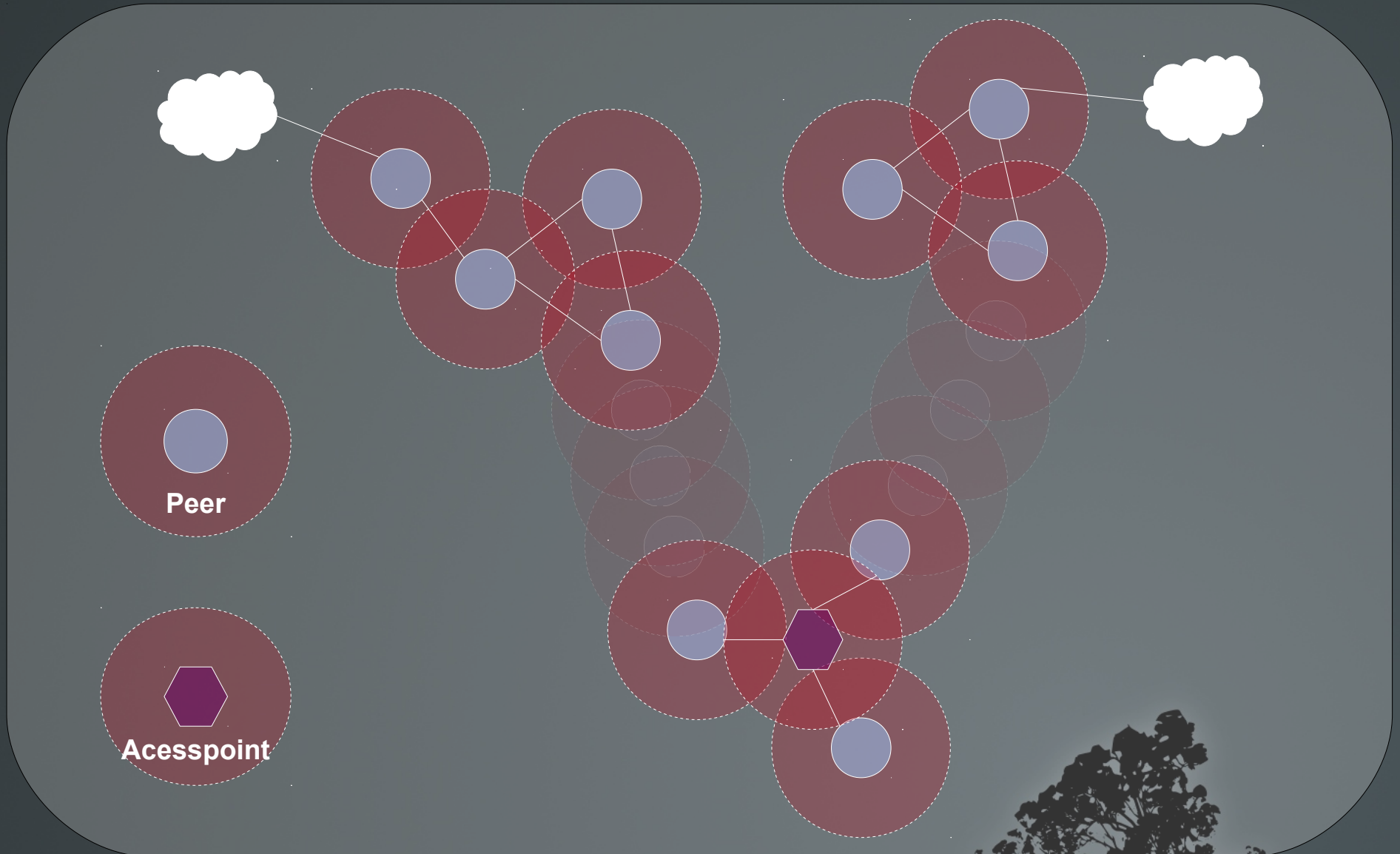
Basics – Model



Basics – Model



Basics – Environment

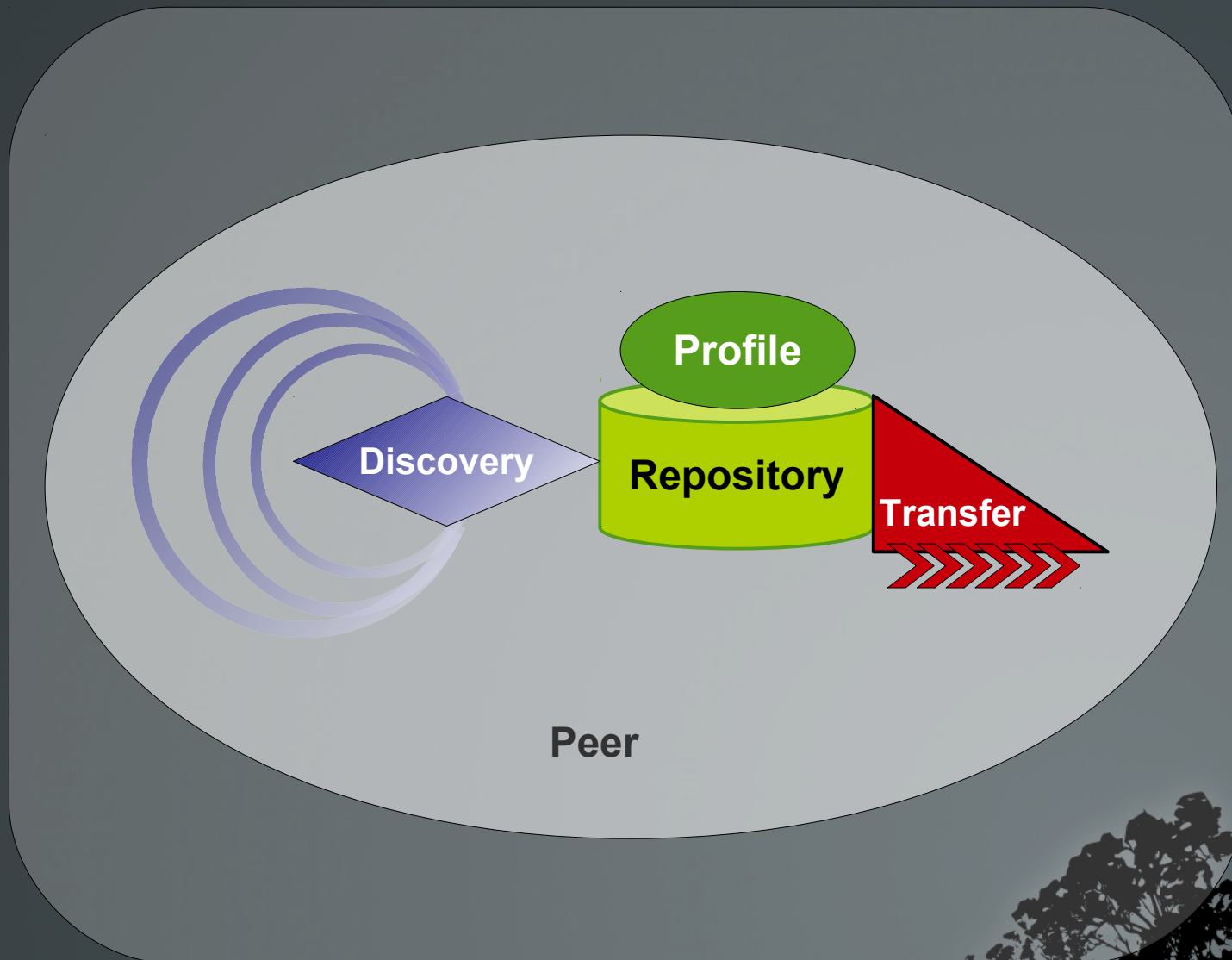


Basics – Nodes

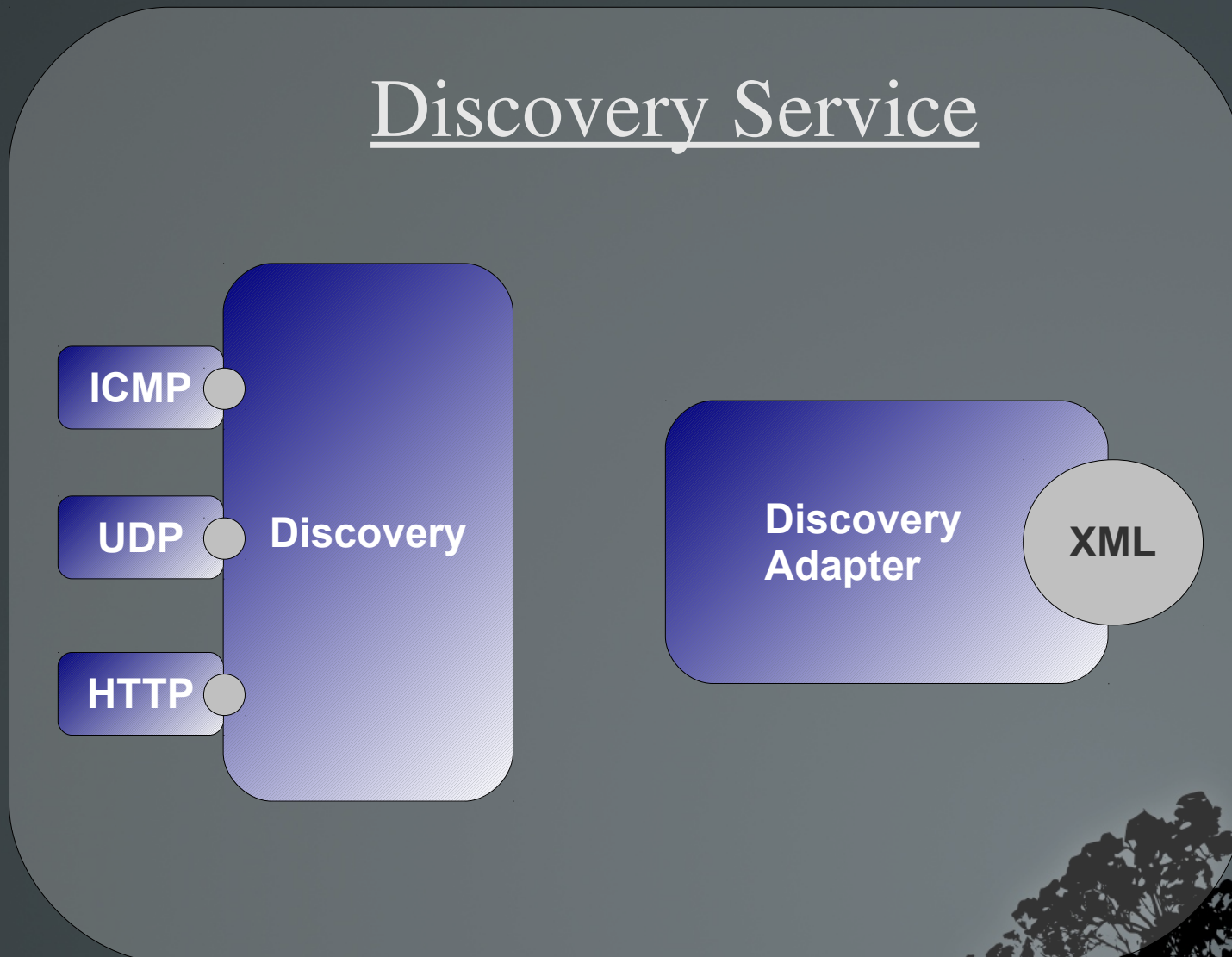
Mobile Profile

- Interfaces
- Sensors
- Capabilities
- Mobility
- Social information

Architecture – Components



Architecture – Components

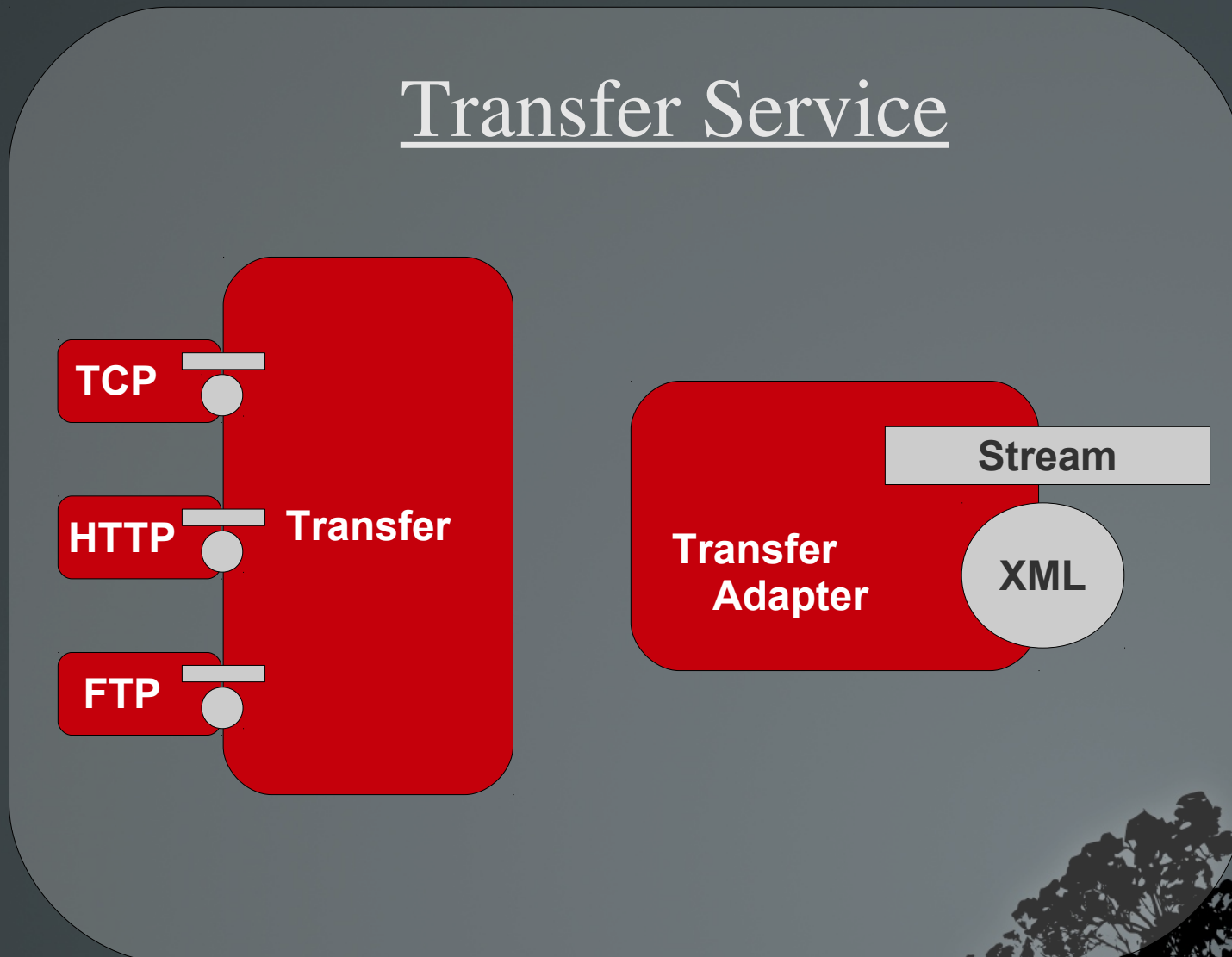


Architecture – Descriptors

Node descriptor

- Very compact!
- Transfer services (URI)
- Profile
- Certificates

Architecture – Components

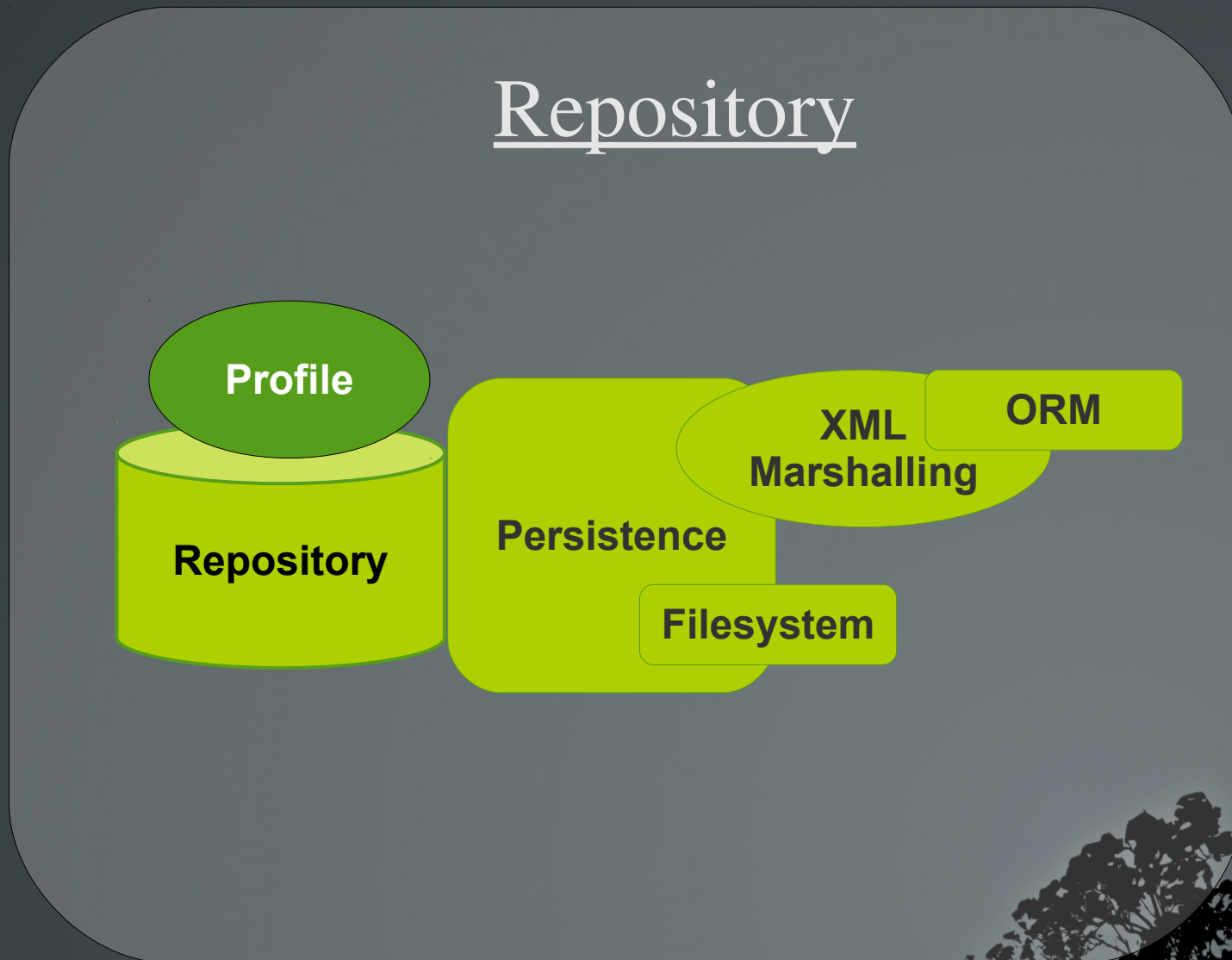


Architecture – Descriptors

Information descriptor

- Epidemic model
 - Delays
 - Profile requirements
 - Events
 - Termination
- Routes
- Signatures

Architecture – Components



Architecture – Core

Core technologies

- Java standard library
- XStream
Object serialization
- ORM-Lite
Object relational mapping

Applications

- Viral Media
 - Viral TV
 - Viral Radio
- Emitting Sensors
- Outback Messaging
- Censorship Free Communication

Result

Attributes

- Modular
- Platform independent core
- Flexible / Agile
- OSI layer 1 & 2 dependency