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Connecting the Dots:
Integrating RADIUS to Network Measurement and Monitoring

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Since 2003

OSC

Since 1993

Radiator

developed,
supported and
consulted by

Finnish and Australian engineers

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RADIUS
Auth.

Network
Management,
Monitoring

Infra
Services
(DHCP, DNS,
etc.)

Servers

Access devices,
e.g. WiFi controllers,
DSLAMs etc.

People

Devices

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RADIUS Auth.

Network Management, Monitoring

Infra Services (DHCP, DNS, etc.)

Servers

Access devices, e.g. WiFi controllers, DSLAMs etc.

- **Network monitoring is done by polling each component**
- **Network management is done via pushing configurations to components**

People

Devices

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RADIUS
Auth.

Network
Management,
Monitoring

Infra
Services
(DHCP, DNS,
etc.)

Servers

Most of the network components and devices use infra services, which may have no connection to other systems

People

Devices

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RADIUS
Auth.

Network
Management,
Monitoring

Infra
Services
(DHCP, DNS,
etc.)

Servers

RADIUS is used only for access control (authentication)

Access devices,
e.g. WiFi controllers,
DSLAMs etc.

People

Devices

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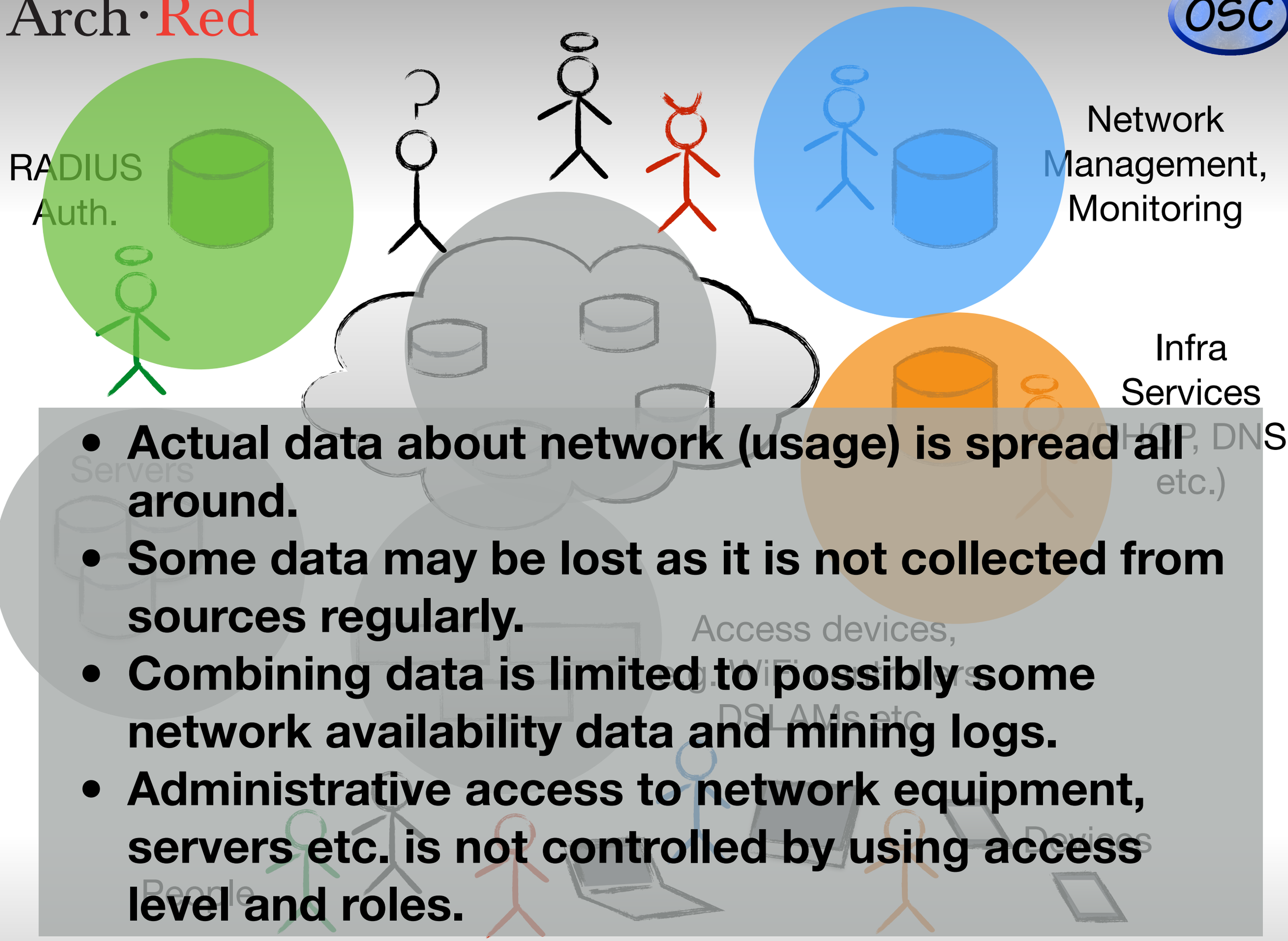

- **Actual data about network (usage) is spread all around.**
- **Some data may be lost as it is not collected from sources regularly.**
- **Combining data is limited to possibly some network availability data and mining logs.**
- **Administrative access to network equipment, servers etc. is not controlled by using access level and roles.**

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So what can RADIUS do?

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RADIUS
AAA

Network
Management,
Monitoring **AND**
Measurement

Infra
Services
(DHCP, DNS,
etc.)

Servers

People

Access devices,
e.g. WiFi controllers,
DSLAM, etc.

Devices

- **RADIUS for Authentication AND Accounting AND Authorization**
- **Dialog between network components, infrastructure and services**
- **Collecting all data**
- **Dynamic configuration**

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How?

Well… among others …

- RADIUS authentication and accounting
- TACACS authentication, accounting and authorisation
- Radiator RADIUS server integration capabilities, additional dynamic modules
- AAA/IdM protocol translation (LDAP, SAML, etc.)
- RADIUS/TACACS proxying/roaming for federated authentication
- 802.1X access control and authorisation
- Various two-factor authentication solutions
- Did I mention Radiator RADIUS server is based on Perl?

More?

my contact information

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these and more slides:
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