



With financial support from the Prevention, Preparedness and Consequence Management of Terrorism and other Security Related Risks Programme European Commission - Directorate-General Justice, Freedom and Security



open network for sharing security related information



Agenda

1

NISHA Concept

2

Cooperation

3

Network architecture

The NISHA project

- › EC co-funded project 2012-2014
Under the programme for „**Prevention, Preparedness and Consequence Management of Terrorism and other Security Related Risks**”
- › Starting point: EISAS Feasibility Study (by ENISA)
- › FISHA prototype 2009-2011
- › Network for awareness security information sharing
- › Reliable information created by experts

NISHA Goal

- ▶ **Goal:**

 - Raising the awareness of IT security issues

- ▶ **Target groups:**

 - Citizens and SMEs

- ▶ **Types of information:**

 - Awareness information, alerts, advisories

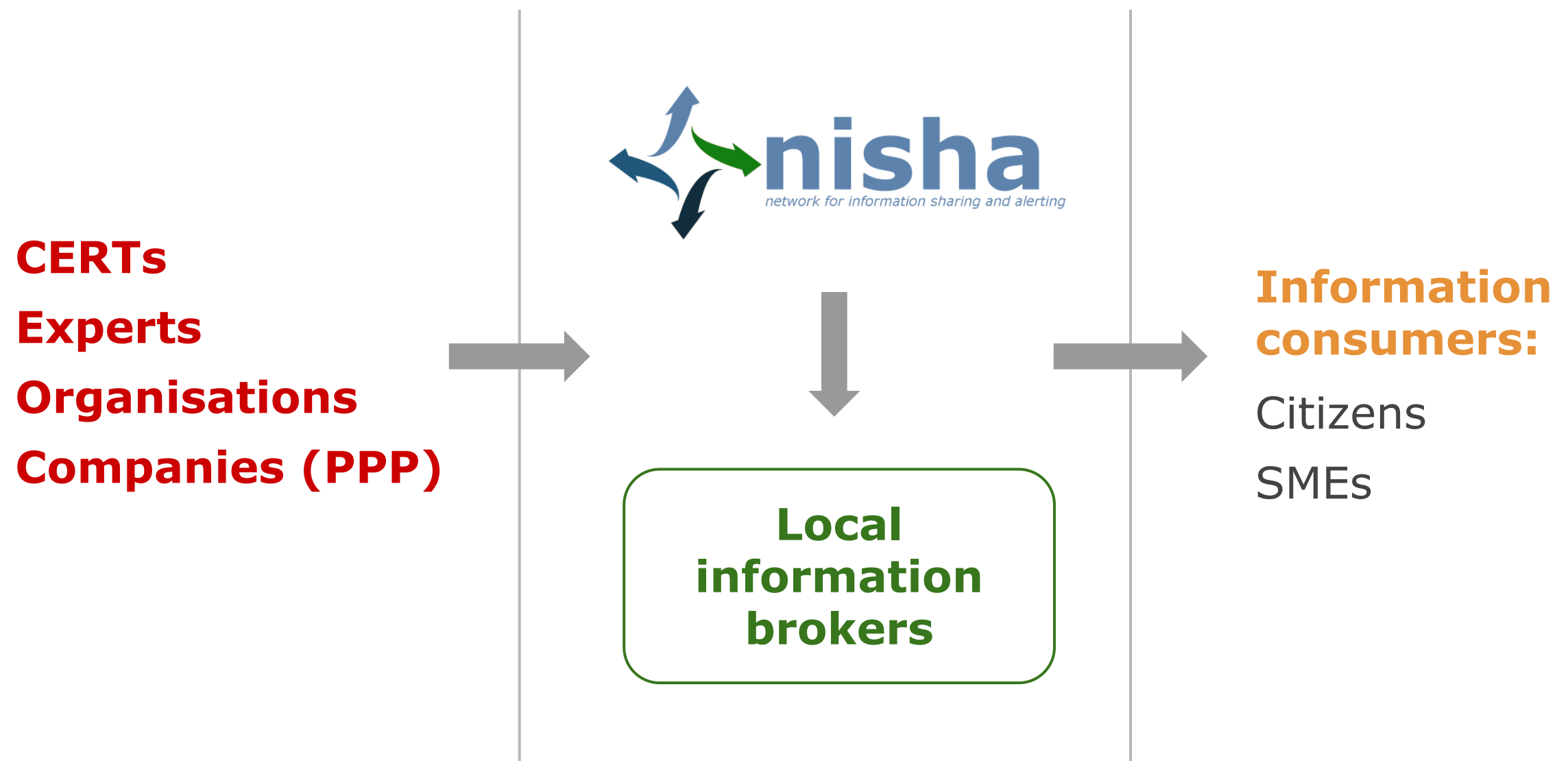
- ▶ **Appropriate format:**

 - Trustworthy and tailored, less technical, in native languages

- ▶ **Effective distribution of information:**

 - Multiple channels

NISHA Stakeholders



NISHA Stakeholders

NETWORK SECURITY ORGANISATIONS (e.g. CERT TEAMS)

Every network security organisation joining NISHA network forms a **node** which holds a **web portal** that provides information for end users, increases the value of information (e.g. add best practice to alerts, translates information into other languages) and shares the information with other nodes and brokers.

LOCAL INFORMATION BROKERS

Distribution channels for information from the network. Means every possible way to reach the final recipient: web portals, social sites, RSS, radio, TV, awareness campaigns etc.

INFORMATION PRODUCERS

Reputable entities delivering valuable information or materials concerning security. PPP.

INFORMATION CONSUMERS

Citizens and SMEs.

Information brokers

Info. portals



Bloggers



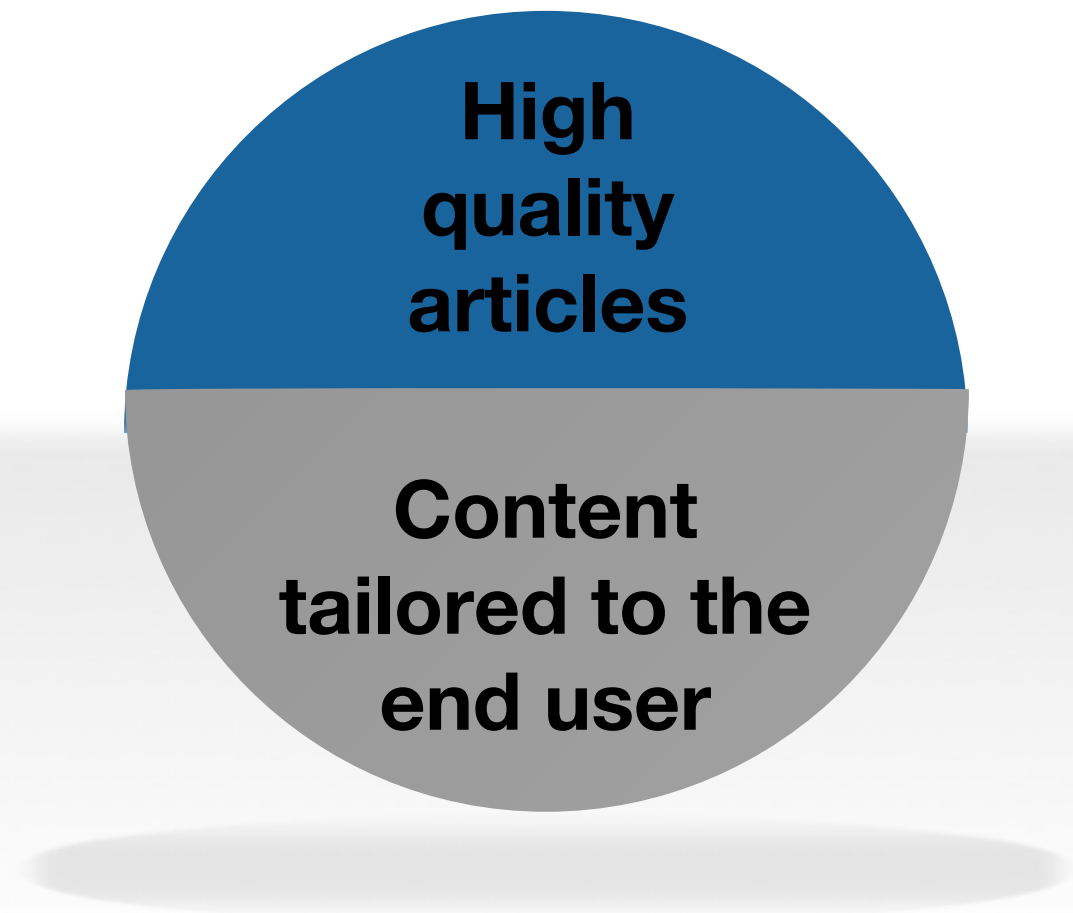
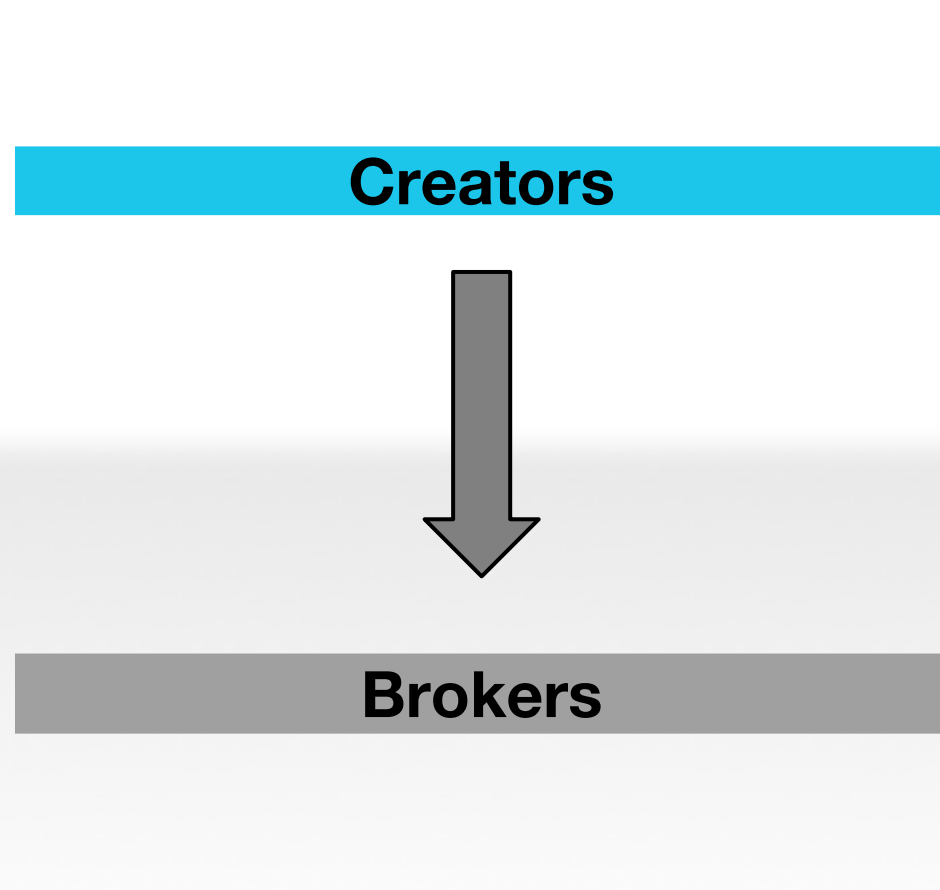
Press agencies

Journalists

SMEs



Cooperation



The portal

Portal

- Access to the NISHA net.
- User (op.) management

Creating

- Articles, advisories
- Cooperation
- Translating
- Quality assurance

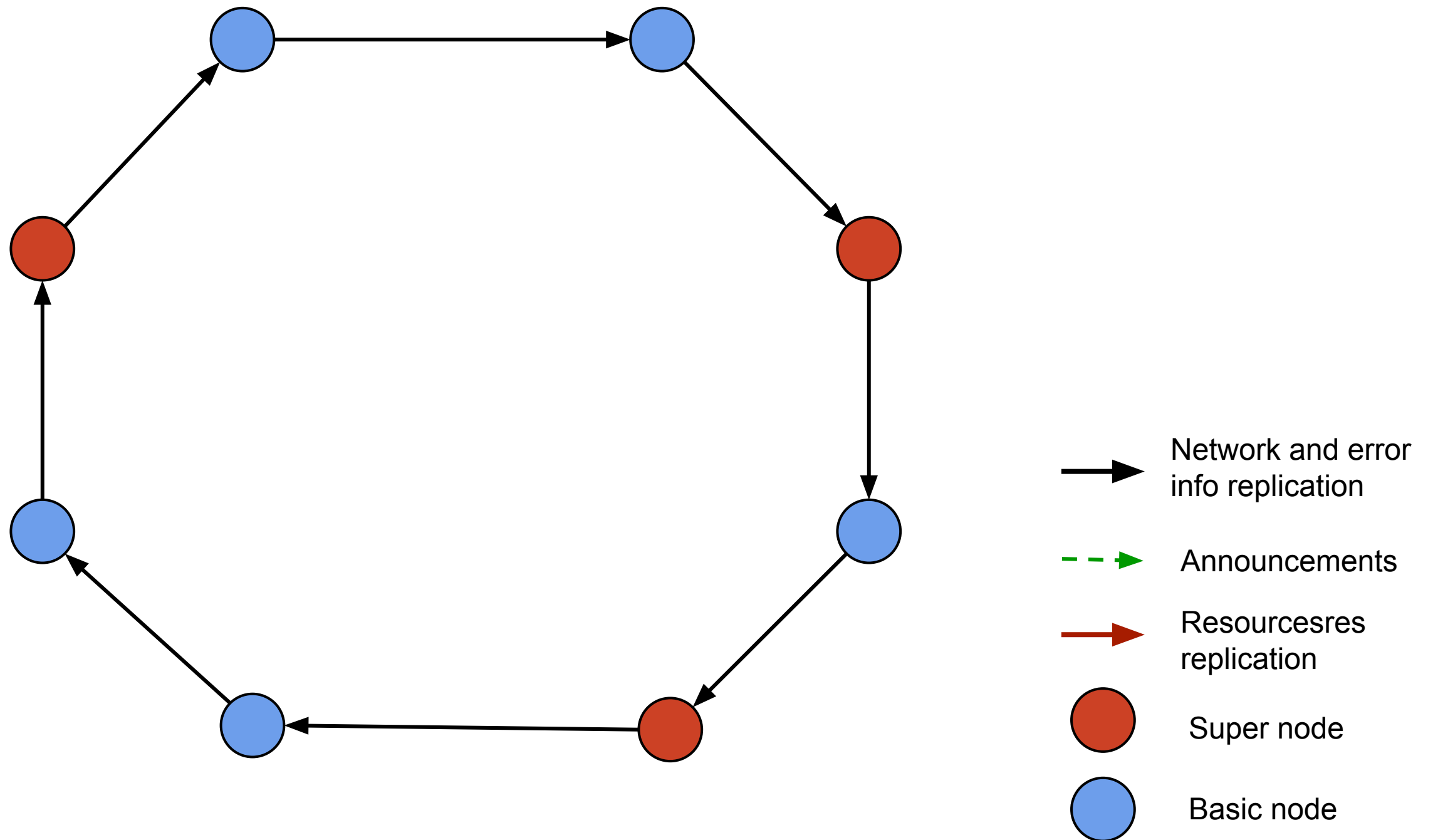
Publishing

- Information portal
- Control over what is published
- Information about source of article

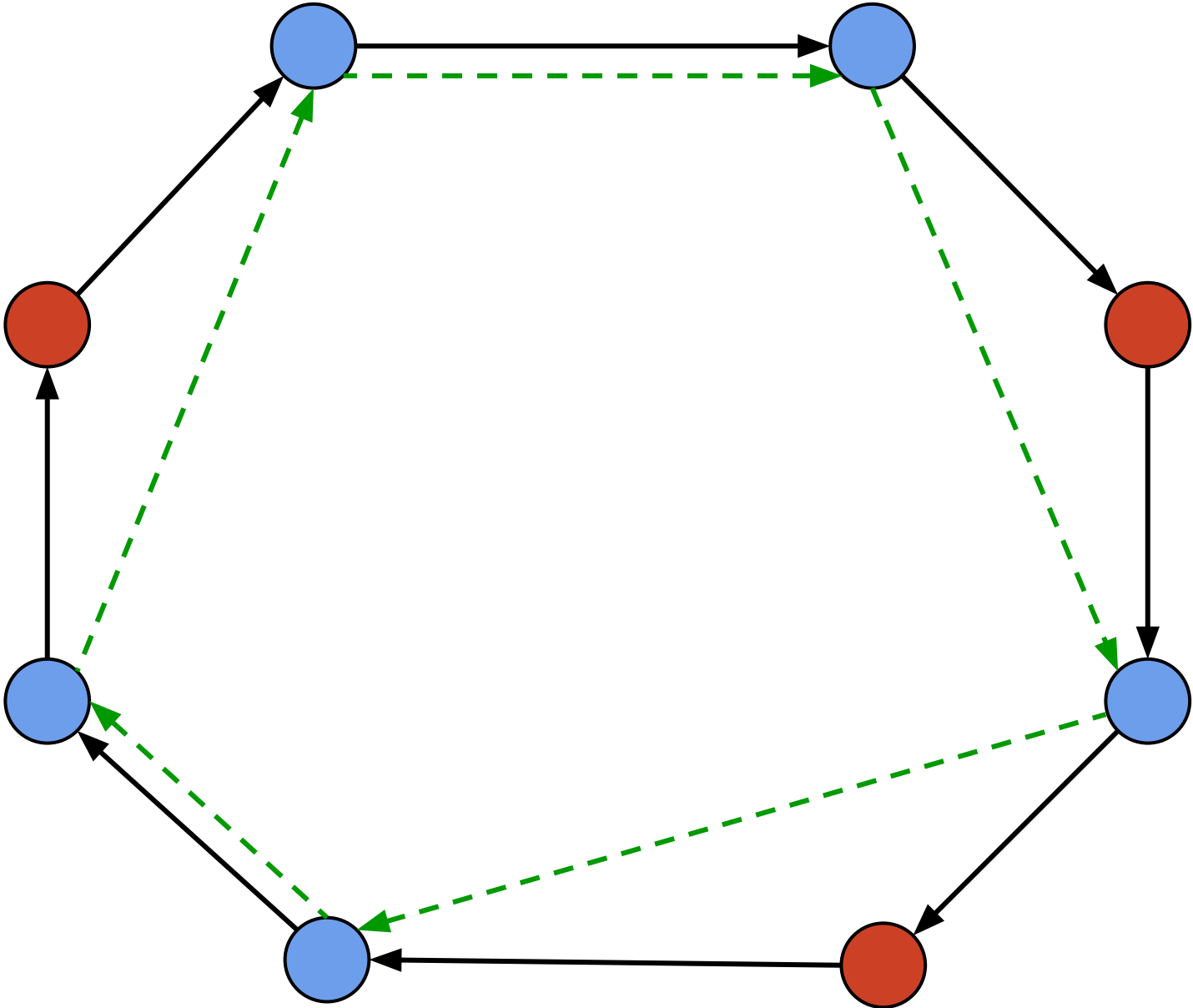
Searching

- Tags
- Full-text search
- Filtering capabilities

NISHA network architecture

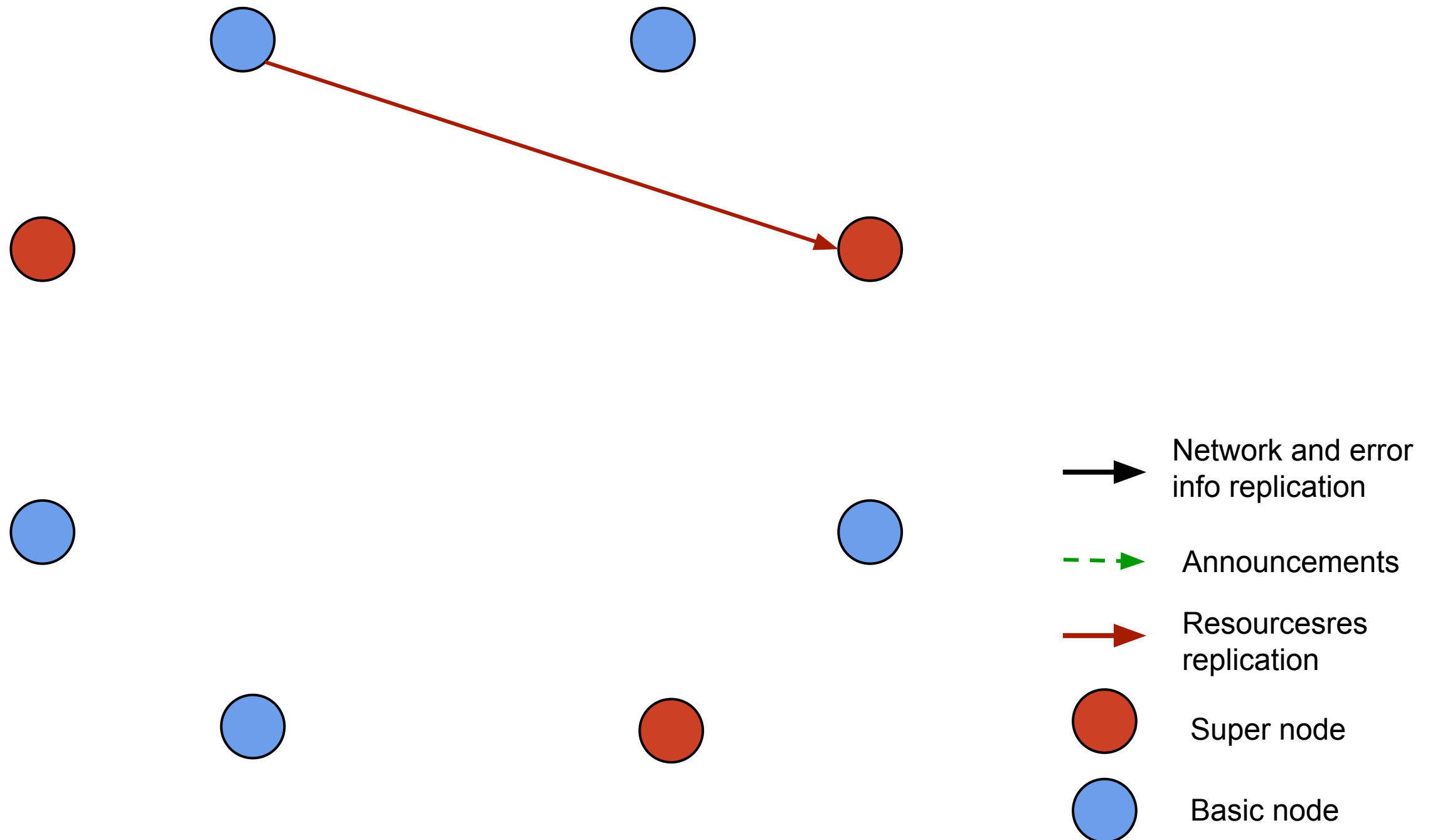


NISHA network architecture

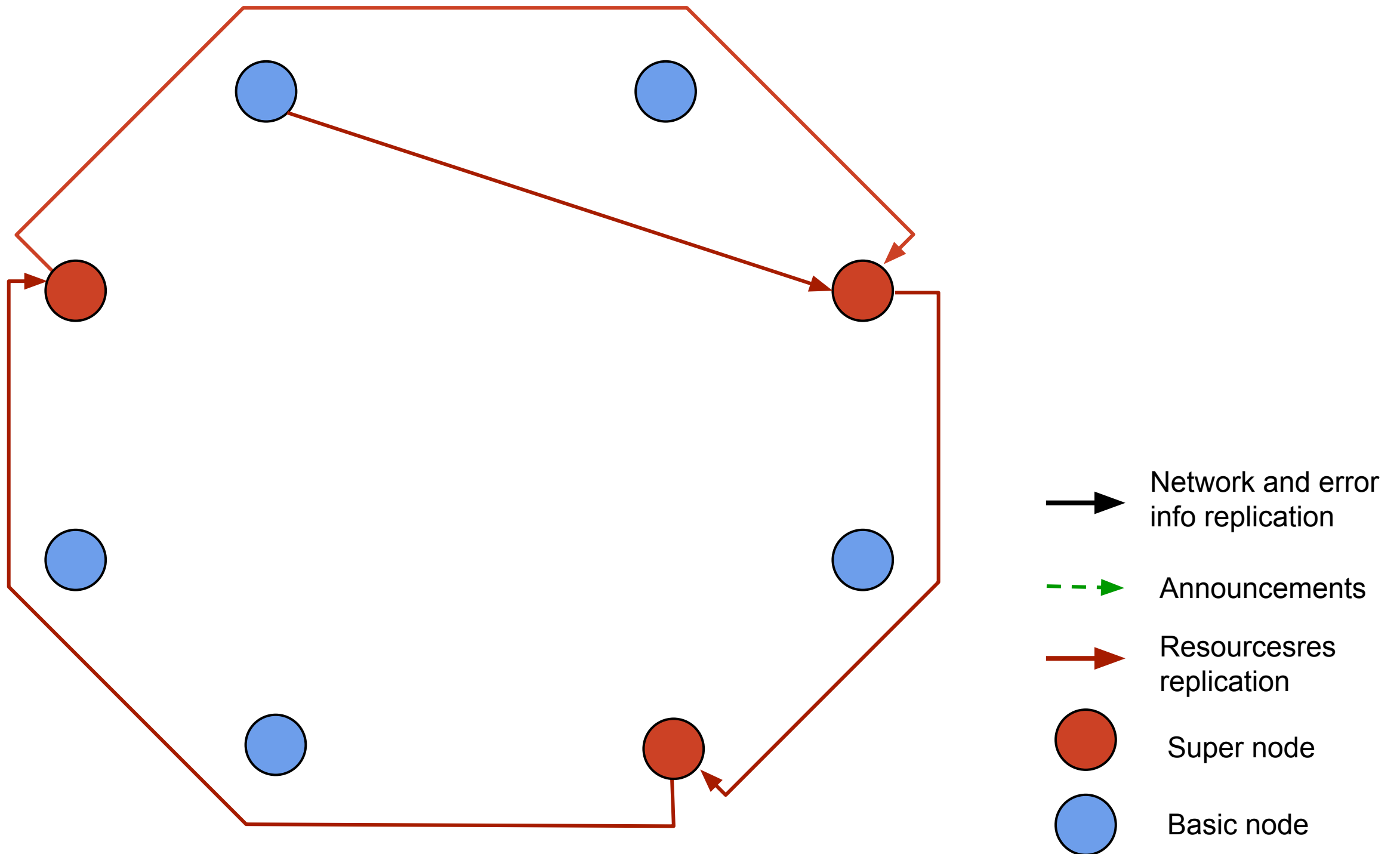


- Network and error info replication
- - - Announcements
- Resources replication
- Super node
- Basic node

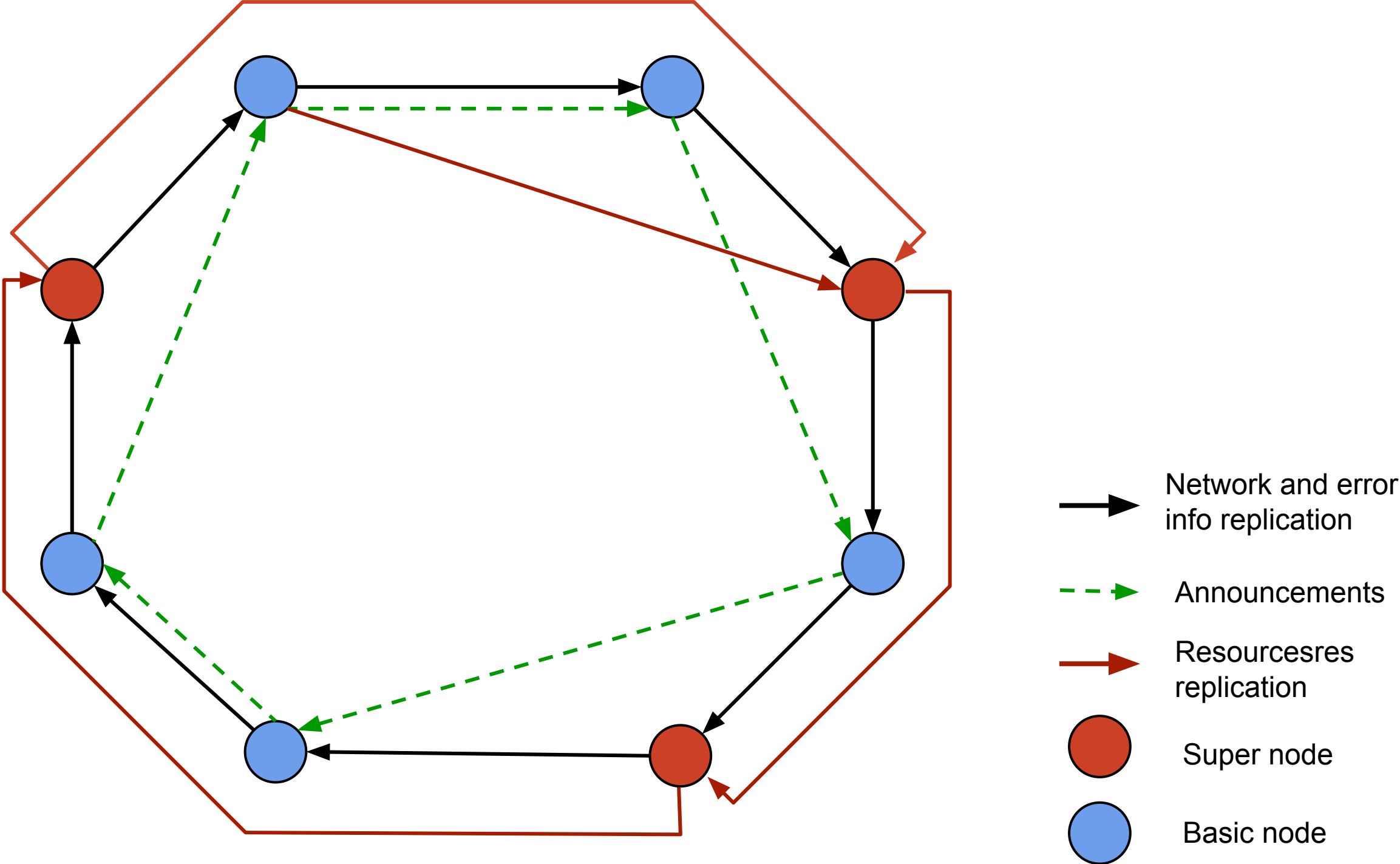
NISHA network architecture



NISHA network architecture

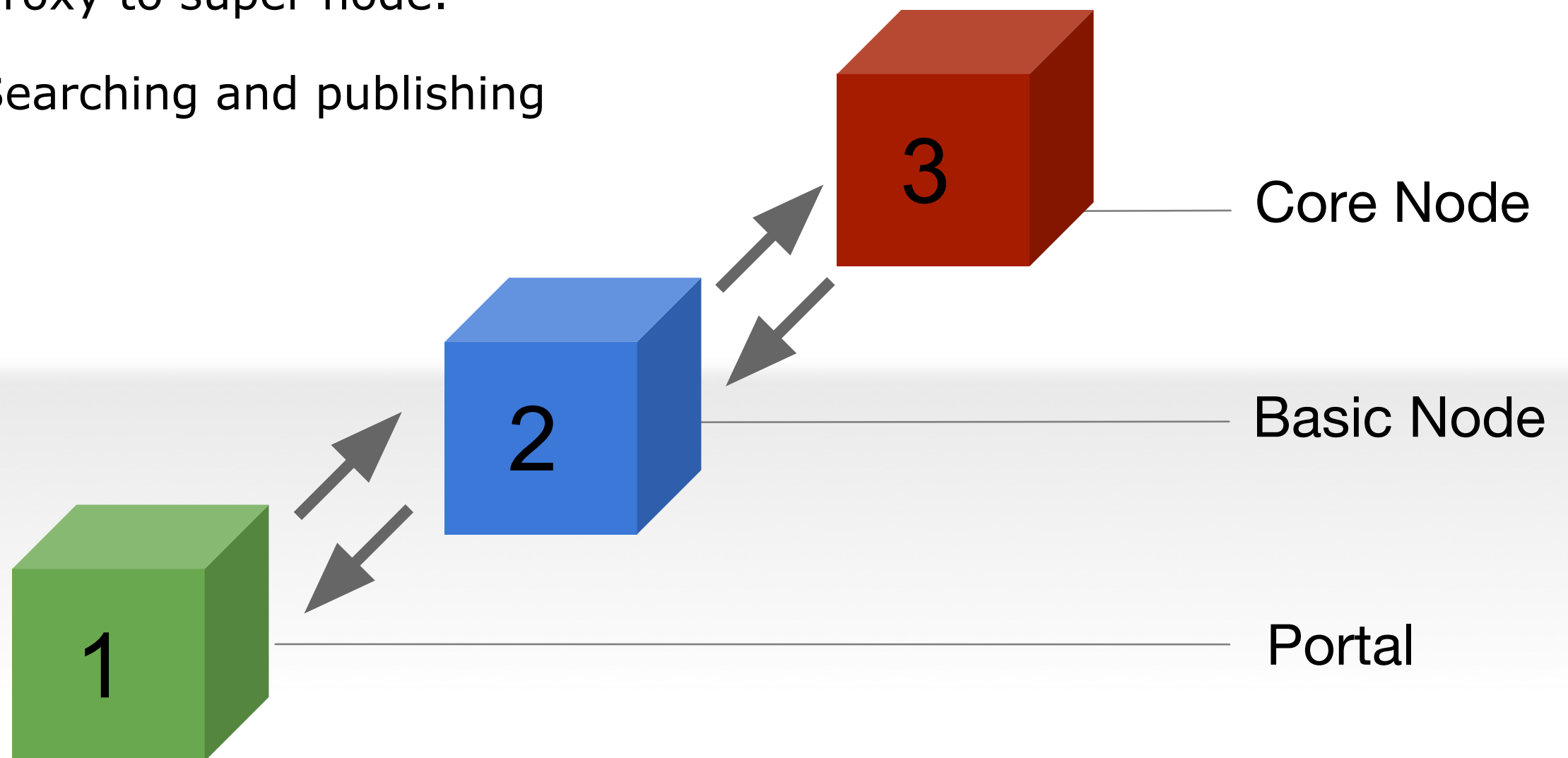


NISHA network architecture



NISHA network - information flow

- Basic node as a communication proxy to super node.
- Searching and publishing



CouchDB

CouchDB is a **document oriented** database.

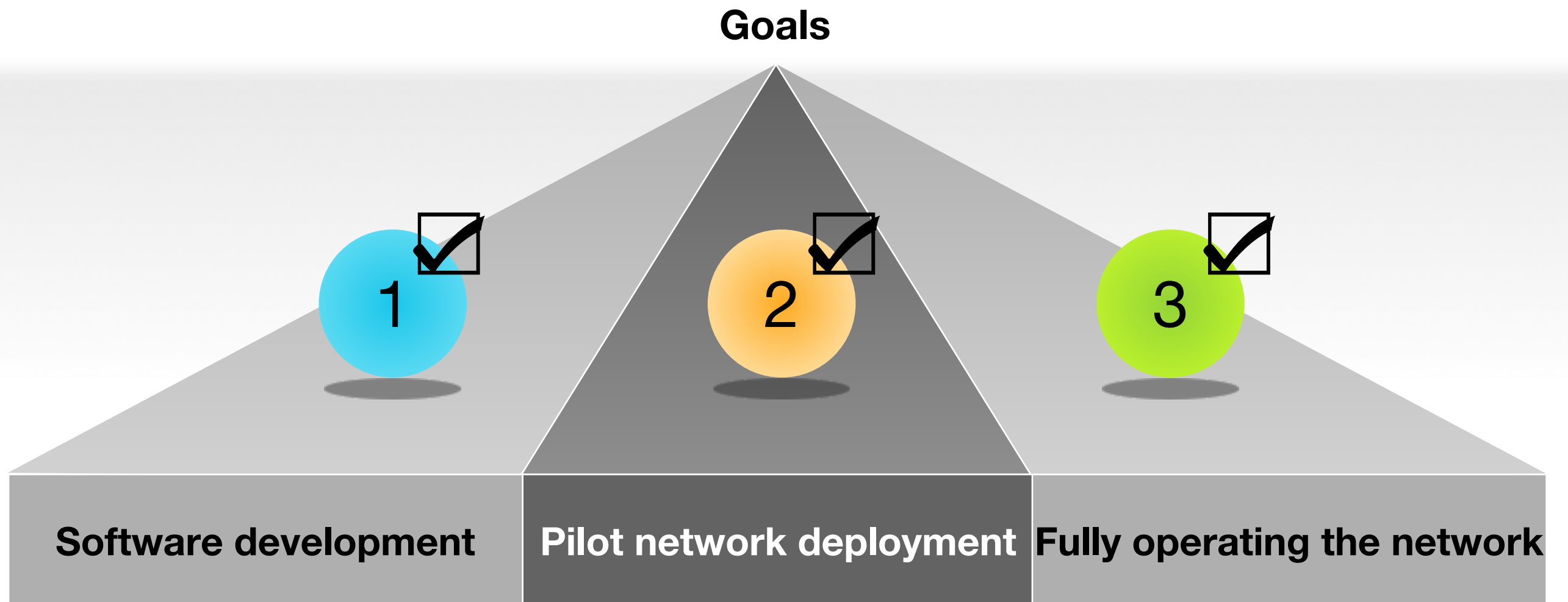
Perfectly fits in NISHA model of information:

- Main focus on **article** (maps to CouchDB doc.)
- Support for various types of resources (as attachments)
- Easy representation of network architecture
(set of documents which list nodes and info about them)
- Simple representation via JSON objects.
- Human readable, easy to parse and edit.
- Build-in revisioning prevents from data inconsistency issues.

CouchDB

- CouchDB replication as a document transport method in the NISHA network.
- Added fault tolerance mechanism - replicate to next neighbour and notify about an error.
- REST interface for obtaining the data
 - HTTP-based mechanism of creating and obtaining data.
 - Widely supported.
 - Easy to debug.
- NISHA schemes for documents validation

Project state



Next



The portal



Lessons learned



Legal aspects of NISHA

Thank you

Katarzyna Gorzelak