SSDN Update

Jim Buchan

Chief Technology Adviser

21st November 2006

j.buchan@ltscotland.org.uk

Aim of presentation

**To provide an overview about
the SSDN Project**

**Provide some details about the
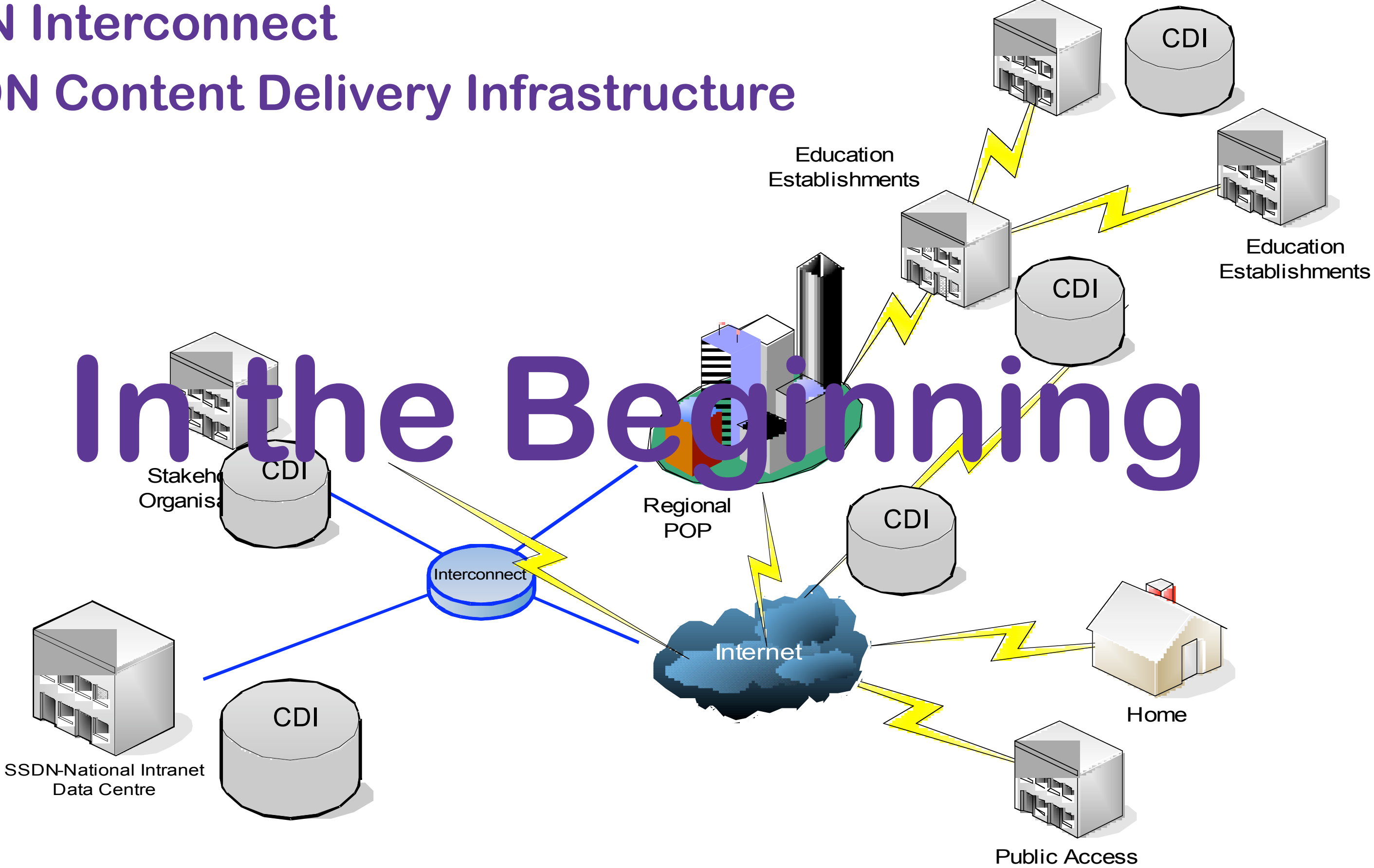re-procurement of the Interconnect**

Terminology
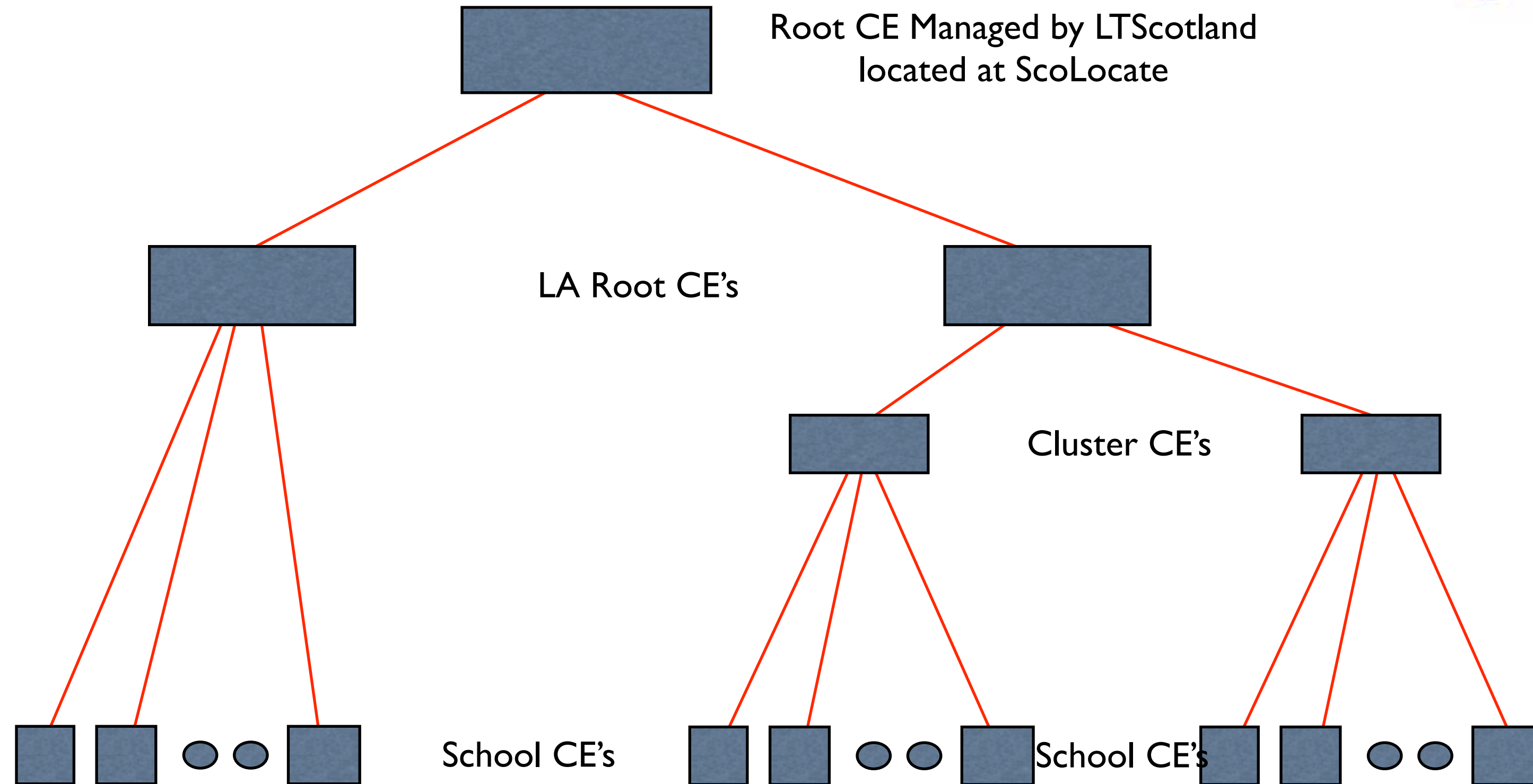
The SSDN Project
consists of

SSDN Interconnect

SSDN CDI

Glow - (previously the Intranet)

SSDN Interconnect

SSDN Content Delivery Infrastructure

Glow

In the Beginning

SSDN - Content Delivery Infrastructure

Root CE Managed by LTScotland located at ScoLocate

LA Root CE's

Cluster CE's

School CE's

School CE's

SSDN - Content Delivery Infrastructure

Local Authority hierarchy of Web Caches

Integrated Content Pre-positioning

Content Channels

Audio and Video Broadcast

Technical work ongoing to integrate with Glow

National Internet access filter service with Glow

SSDN - Content Delivery Infrastructure

Still being built and configured

SSDN Interconnect

Contract between Scottish Executive and UKERNA

To provide a broadband interconnect for each of Scotlands LAs (32) National Agencies (LTScotland-2, SQA-2 and SEEMIS

Additional connections now being installed

Internet Transit via SuperJANET

Glow

It's happening now

But what is it?

Contract Awarded -
September 2005

Initial Product Development - RM

Local Authority, National Body and
Teacher Education Engagement

First visibility of service
4th Qtr 2006 - Phase
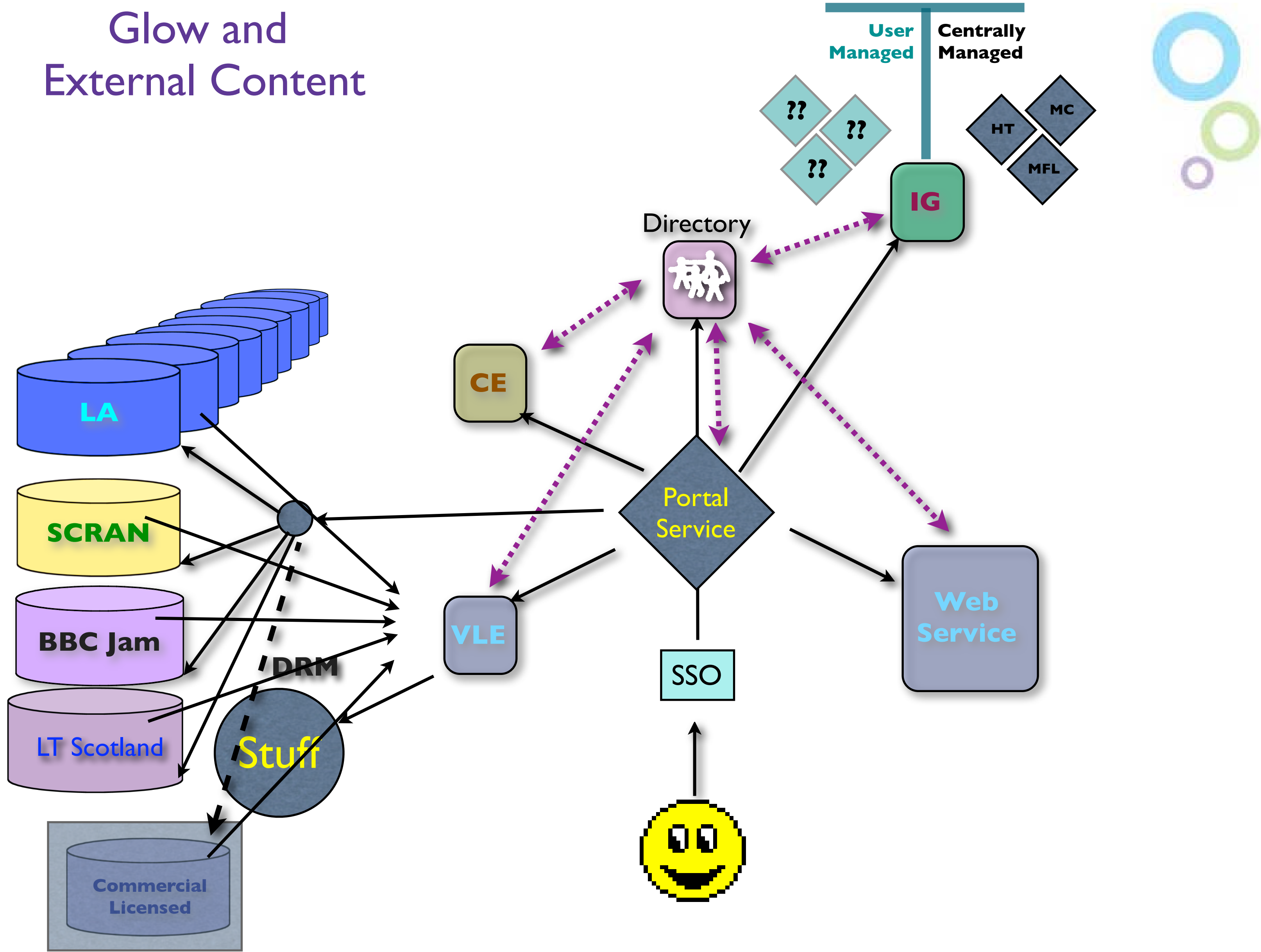1 Pilot

Full Service 3/4th
Qtr 2007

Glow includes:

- **a national directory and authentication system**

- **a national virtual learning environment (VLE)**

- **collaborative software applications**

- **support services**

**It's the start of a long and challenging process!
Believed to be the largest system of its type.**

Glow and
External Content

User
Managed | Centrally
Managed

?? ??
??

HT MC
MFL

IG

Directory

CE

LA

SCRAN

BBC Jam

DRM

LT Scotland

Stuff

Commercial
Licensed

VLE

Portal
Service

SSO

Web
Service

glow

Pupil

Kathryn Veith

School2

Pupil Home
Learning and Teaching
Timetable
School2

NationalPortal

NationalPortal

LazensideLA

Staff Home
LazensideLA

Glow Groups

Personal

Learning and Teaching
Scotland Online Service

Home

Modify My Page ▾

Picture

Latest News

School2

⊟**School2**

S1 Parents Night
The first year parents night will take place in the school hall on the 18th September from 4.30pm.

Guidance staff will be available...

School Lunches
New healthy options menu are available from today.

There will also be **free** fruit available with any main meal purchased.<...

NationalPortal

⊟**Virtual Scouts**

Virtual Scouts - The First Camp

Inbox

Displays the number of new messages in your inbox

This functionality is not currently available

Settings

Change Theme
Change user's portal appearance.

Change Profile
Change password and other personal information.

🖹 http://www.ltscotland.org.uk/   🖥 🔒 ⊘ Trusted sites

🏁 Start   🖳 ◯   🗁 C:\   🗐 Microsoft Excel -...   🗐 School1 - Micros...   🗐 School1 - Micros...   🗐 Pupil - Microso...   🗐 Authority Group ...   🗐 Error - Microsoft...   🖉 Active Directory ...   🗐 🔲🔲📧🖥   10:02

Glow includes:

a national directory and authentication system

designed to permit secure access to services by all categories of user

800,000 users to include:

school & authority staff
pupils (5-18)
support staff in schools
relevant authority staff
TEI staff and students
others as appropriate

single sign-on to all applications

Glow includes:

social software

email: Based on RM Easymail Plus
video conferencing & virtual whiteboards: Marratech/H.323
chat rooms: RM Chat
video streaming: Real Networks
instant messaging: MS Live Comms Service
presence: MS Live Comms Service
mailing lists: LSoft ListServ

Will be possible to integrate other applications in time (Web 2).

Glow includes:

a national virtual learning environment (VLE):

using the VLE, teachers will be able to:

prepare, review & plan lesson material
assign lessons & courses to individuals or classes
create tests & tasks
create mark books
create & assign homework to groups or individuals
manage coursework

Anytime anywhere access.

Glow includes:

support services

    engagement & consultation
    supporting local authorities

A partnership between LTScotland & RM = SSDN team

    professional development for teacher
    technical support
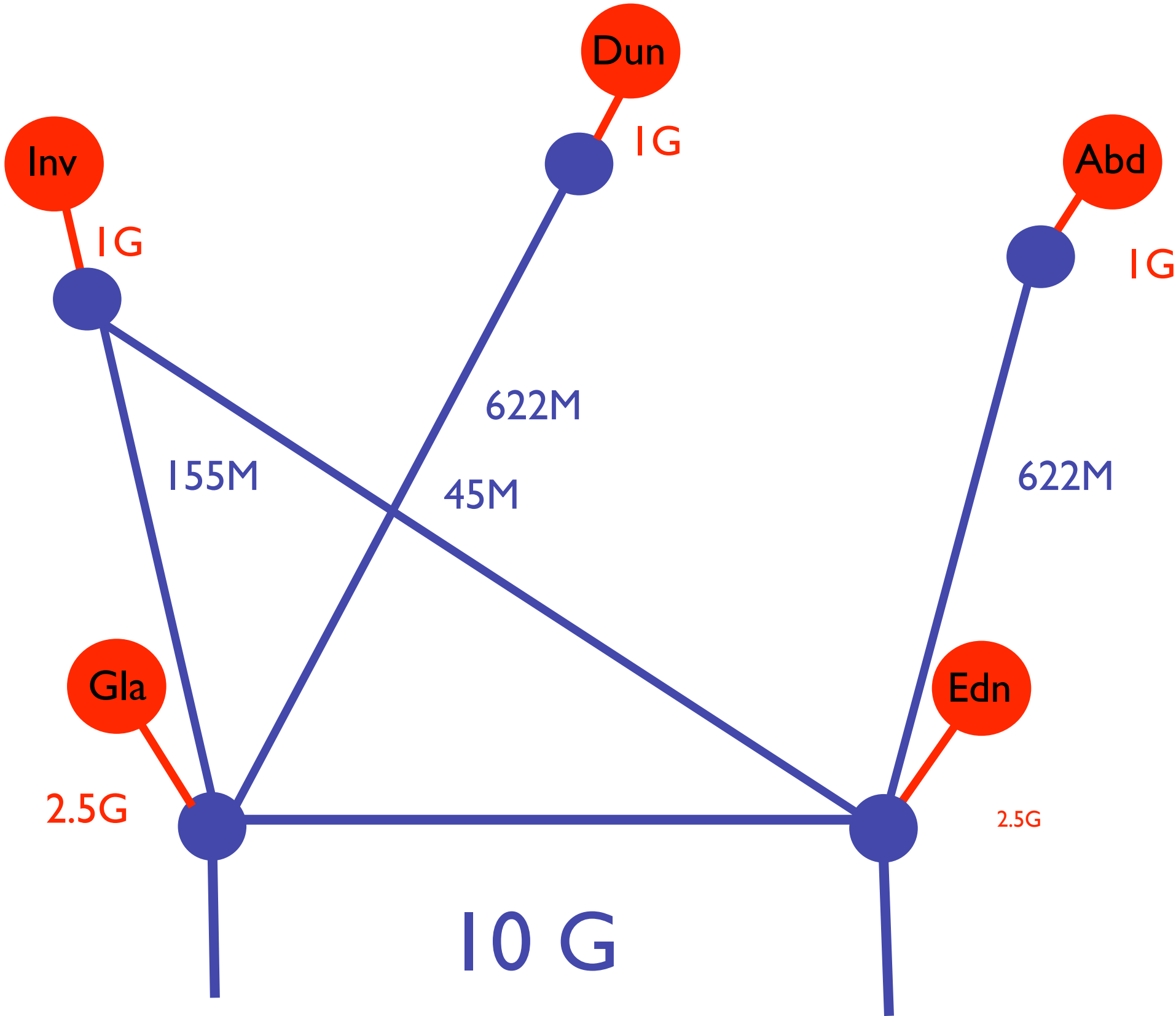   support to develop use
    dedicated teams

SSDN Interconnect

Primary provision for Education

Many LAs have used it to provide Internet access for other department and Libraries.

Recent further expansion of use - Improvement Services Project.

SSDN Interconnect
Original Core Infrastructure

Dun

1G

Inv

1G

Abd

1G

622M

155M

45M

622M

Gla

Edn

2.5G

2.5G

10 G

**Built around the SuperJANET core network**

Reliability

During the service period we have identified
weaknesses which led to outages.

UKERNA contract with Telco requires Teleco to
improve its infrastructure after fault

Reliability has been shown to improve as
the contract ages

Interconnect V2 will have more stringent
drivers which may lead to an enhanced
specification

SSDN Interconnect
Interim (06 - 07) - Infrastructure

Inv

Dun

IG

IG

Abd

IG

45M

155M

Gla

Edn
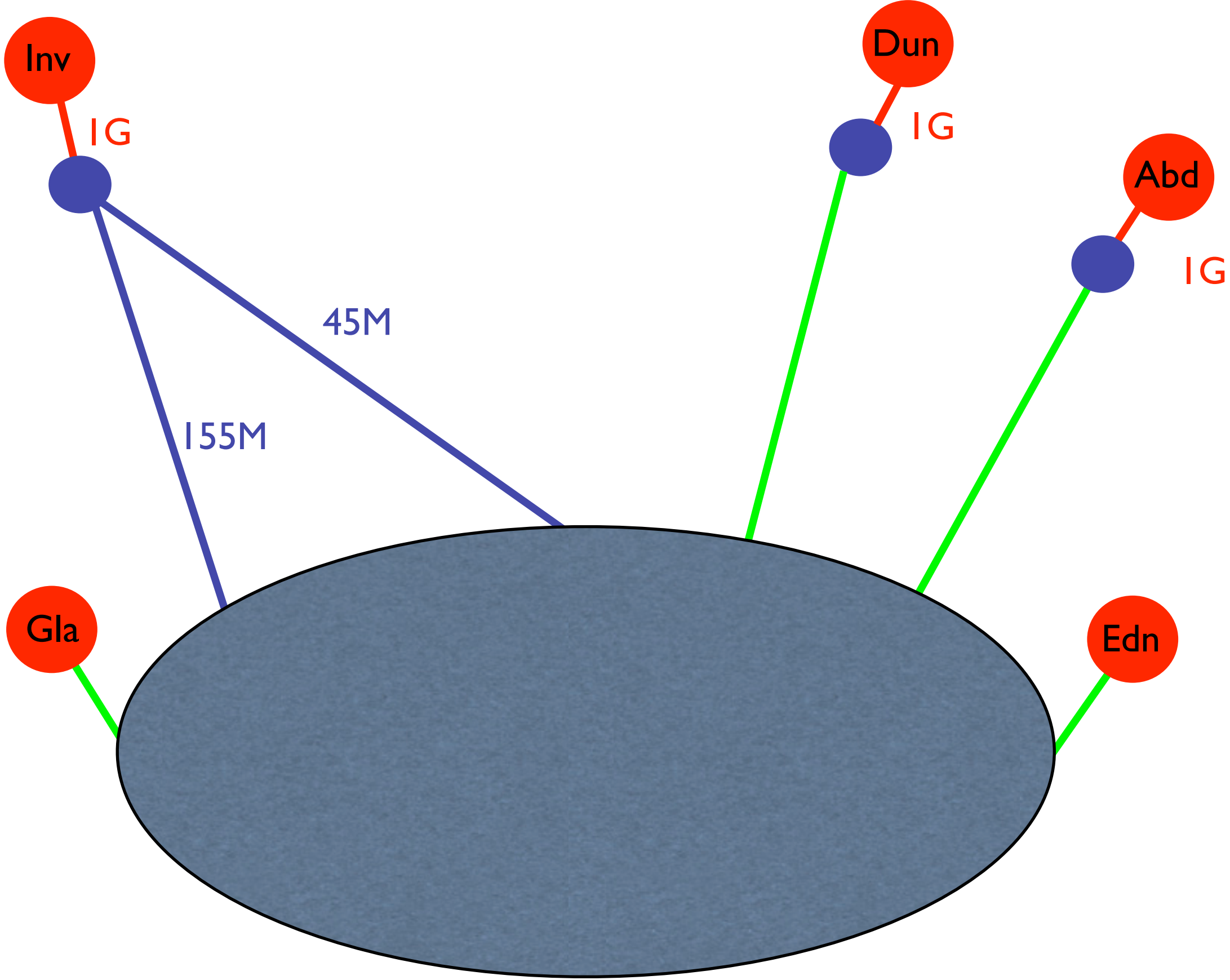
SuperJANET 5 core network

Interconnect Future

Current contract finishes - end July 2007

Work already started to plan for a replacement service.

All stake-holders being consulted now
E-survey and face to face meetings

Local Authorities, National Agencies, Scottish Executive

Widened interest in using the interconnect - e.g. Improvement Services project

What the Users have said

Reliability of the current Interconnect. (0 - 5, where 5 is 'best')

All respondents scores 4 or 5

Come comments from the e-Survey

No problems whatsoever

Can't remember any major outages in core time

excellent, good proactive notifications

the connection has been very reliable

over 99% availability so far, little or no problems attributable to the interconnect

What the Users have said

Actual length of outages experienced. Please score on basis of typical time taken to fix.

of 37 responses,

22 said typical time to fix is 1 - 3 hours

6 said typical time to fix is 3 - 10 hours

1 said over 10 hours

What the Users have said

When asked about the JANET Planned Maintenance Period

of 37 responses,

Majority stated that this had caused no operational inconvenience

Further study has confirmed that LAs would prefer if the Planned Maintenance was moved to a time which does not overlap with core working hours.

General Requirements for SSDN Interconnect V2

All user organisations have confirmed that they want it.

Being used for wider user base - not just Education

More bandwidth needed - confirmed by usage stats

Resilience is much higher priority now - how can this be achieved?

Have you any questions?

SSDN Update

Jim Buchan

Chief Technology Adviser

21st November 2006

j.buchan@ltscotland.org.uk